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CONTENTS.

	Page
Looking Back. By H. Elwin Harris, M.A., M.B., F.R.C.S.	1
Vaginal Discharge. By R. S. S. Statham, M.D., Ch.M.	27
Congenital Word-Blindness. By E. R. Chambers, F.R.C.S.	41
Nervous Disorders in General Practice. By Frank Bodman, M.B., Ch.B., M.R.C.S., L.R.C.P.	47
Reviews of Books	59
Editorial Notes	70
Obituaries. Dr. Charles Randolph	71
Edward John Cave, M.D., F.R.C.P.	73
Meetings of Societies	73
The Medical Library of the University of Bristol	75
Publications Received	78
Local Medical Notes	79

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The Bristol Medico-Chirurgical Journal

"Scire est nescire, nisi id me
Scire alius sciret."

SPRING, 1934.

LOOKING BACK.

The Presidential Address, delivered on 11th October, 1933, at the opening of the Sixty-first Session of the Bristol Medico-Chirurgical Society.

BY

H. Elwin Harris, M.A., M.B. Cantab., F.R.C.S. Eng.,

Consulting Surgeon to the Bristol Royal Hospital for Sick Children and Women.

First allow me to offer you my best thanks for electing me your President for this year. When the Secretary wrote to me that the Committee proposed to nominate me as the President-Elect, it was an agreeable and, I must admit, a most unexpected surprise. After the most careful introspection I have been unable to find anything in my past history which would justify the Committee's action. However, I will endeavour to the best of my ability to uphold the dignity and traditions of this Society, and trust I may prove a worthy representative of that great body of general practitioners for whom this honour is really intended.

On their behalf and my own I again thank you most sincerely.

To the majority of those who occupy this Chair the choosing of a subject and writing of an address presents little difficulty. The specialist in his speciality can always find some abstruse matter which he can elaborate, dilate upon, and when occasion requires use it to edify, perchance to bewilder, an audience. But to a man like myself, who has spent his whole life in practical work, writing up an address is no mean task, and it has been a source of many misgivings. As it is, I can only offer you to-night a talk which might be most aptly described as a thing of shreds and patches.

Sinking into my subconscious self in the hope of getting an inspiration for to-night, I found that there stood out far and above anything else the startling changes and discoveries which have taken place in every branch of medical knowledge since I commenced practice—changes and advances of such magnitude that it is hardly credible they have all occurred in one life-time.

I propose to enumerate many of these with some views and reminiscences of my own. I would then ask why all these remarkable discoveries were reserved until the end of the nineteenth century and the beginning of this. After that I would point out how our increased knowledge of the nature, treatment and prevention of infectious disease and pestilence has affected the population and mortality of the nation. And if I have time I should like to make a few remarks on the fact that in spite of our manifold and precise means of diagnosis and our more exact knowledge of

disease, quackery in its divers forms, faith-healing and healing by fancy religions, is as rife as it was in the Middle Ages.

In all reforms and great changes there is always a pioneer, and in this case it was Joseph Lister—afterwards Lord Lister. In 1860 he was appointed to the Chair of Surgery at the Glasgow University and Surgeon to the Glasgow Infirmary. The younger generation of medical men here to-night, who were, as it were, born and brought up in an atmosphere of asepsis, will scarcely believe the condition of the patients in the surgical wards of the Glasgow Infirmary when Lister was appointed. We read that the Infirmary was a hotbed of sepsis. Healing by first intention was practically unknown; the mortality after the major operations was appalling. Suppuration, phagedæna and blood-poisoning carried off the most promising cases, and were the sequelæ after the most trifling operations. Hospitals which were founded for the welfare of the poor during the wave of philanthropy which swept over Europe in the eighteenth century were now dreaded by the very people for whom they were intended, and had become veritable death-traps. So desperate were the conditions that James Simpson wrote denouncing the mortality in the hospitals, and even suggested that the hospital system should be done away with altogether. Fortunately, Lister had already commenced his work, and was trying to get at the root of this fatal sepsis, which at that time claimed no less than 45 per cent. of his own amputations. He had already asked himself the question why a simple fracture never suppurated but a compound one almost invariably ended in death

from sepsis and blood poisoning, and he had come to the conclusion that it must be due to something in the air which poisoned the wounds. Simultaneously a French chemist, Pasteur, was working on putrefaction, and he found that putrefactive fermentation was dependent upon living organisms which gained access to the putrescible material from the dust in the air, dust on surrounding objects, and from other putrefying media. Lister immediately applied this knowledge to his work in surgery, and saw that to avoid sepsis it was essential that germs should be prevented from getting into the wound during and after operation. And secondly, that if they were already in the wound some means to destroy them must be found before they obtained a foothold and multiplied. To destroy bacteria and germs Pasteur used boiling. This was obviously of no use to Lister: some chemical had to be found. His attention was called to the use of carbolic, which was then sold under the name of German Creosote, in the treatment of sewage. He obtained a sample of this, and this was the first antiseptic Lister used, and although in after years he was willing to give any other suggested to him a trial, as a matter of fact he preferred carbolic and remained true to it up to the day of his retirement.

In the year 1880 the British Medical Association held its annual meeting at Cambridge. I was then a student at the University and had scarcely commenced any medical study, but the chance of seeing the lions of the profession was too good to be missed, and I wangled leave to go to any of the sections I wished. On the first day I found myself, much abashed, sitting in the back seat in the surgical

section, and the first speech I ever heard on any matter professional was one delivered that day by Joseph Lister on a general discussion of the treatment of wounds. Mr. William Savory of St. Bartholomew's Hospital, for whom incidentally I dressed three years later, was in the Chair.

Mr. Lister produced a number of stoppered bottles in which he had placed with antiseptic precautions a quantity of fresh bullock's blood some time previously, and which he had kept at a temperature of 99·5°. In some of these he had inoculated the blood with septic material, and to others he had added different quantities of rain water. As far as I could gather the great point he made was that the blood-clot, if undisturbed, had the power of protecting itself against the development of organisms. He attributed this power of resistance to the white corpuscles, but emphasized the great importance of covering up the wound and also of keeping the part at rest. The impression I received was that the majority of surgeons were opposed to his methods.

One surgeon, however, Mr. John Wood of King's College, who evidently had a radical cure for hernia, spoke very much in favour of antiseptic methods. He told us that he had performed 137 operations for radical cure of hernia in the previous twelve months after Mr. Lister's methods, many of the cases coming from America, and that he had not only had no deaths but no suppuration. But as I have said, the majority of surgeons were opposed to Mr. Lister's methods, and nothing could have expressed this feeling better than the final sentence of the speech of one of the leading surgeons :[1] "Until better results had been shown to

follow antiseptic methods they were fully justified in continuing a practice which was the mature result of many years of experience." Quite extraordinary were the indifference, opposition, and even hostility to Mr. Lister's methods shown by some surgeons who occupied the highest positions in the profession.[2] And amongst these no one more than my chief, Mr. William Savory. When I dressed for him Lister had been at work on antiseptics for twenty years, and it was three years after Mr. John Wood had related his successes. Yet Mr. Savory was not perturbed that most of his operation cases suppurated, and he still pinned his faith on linseed and bread poultices. He was considered one of the most able men on the staff of St. Bartholomew's. He was certainly a brilliant lecturer: each one of his lectures was a polished oration. As he ignored antiseptics, so he had a contempt for drainage. When lecturing on this subject on one occasion he had before him a glass full of water and a piece of drainage tube of large calibre. After a most eloquent peroration, in which he carried on an argument between himself and an imaginary opponent, he said: "Gentlemen, if I were lecturing to a learned body of surgeons on this subject I should take this tube and place it in the glass of water. I would say: Gentlemen, observe nothing happens, the water does not leave the glass. But if I take the glass in my hand, still holding the tube in it, and turn the glass upside down, the water immediately flows on the floor and the glass is soon emptied. True, some of the water flowed through the tube, but the result would have been precisely the same had no tube been present." But in spite of

opposition in England, antiseptic surgery gained ground on the Continent, where Listerism was far more appreciated than at home.

Neuber of Kiel was the first to practise boiling every instrument and dressing, the clothing of the patient and the overalls of the surgeon, assistants and attendants. This practice proved so satisfactory that it was soon adopted in most countries. In 1886 Schimmelbusch introduced the sterilization of dressings by super-heated system. In 1891 Halstead of Baltimore suggested the wearing of boiled rubber gloves. And in 1900 Hunter of Charing Cross started the wearing of masks, and aseptic surgery could then be said to be the finished article. This was exactly forty years after Lister had commenced his work in Glasgow.

Turning now to medicine. During the later half of the period we have been discussing, more particularly that decade 1880 to 1890, the acquisition of new knowledge with reference to and the discovery of the ætiology and the specific remedies of disease was amazing. And this period is and ever will remain, in regard to the saving of life and the benefit to humanity at large, the most wonderful in the history of medicine.

Pasteur's discovery that definite diseases could be produced by bacteria gave a stimulus to research in the ætiology of infective conditions. In 1876 Koch obtained the bacillus anthracis ; and the introduction by him in 1881 of solid culture media was most important, and led to a remarkable progress in the study of bacteriology. From 1880 to 1890 the bacteria of suppuration, tubercle, glanders, diphtheria, typhoid, cholera and tetanus were all identified and their

relation to the individual diseases established. Those of plague and dysentery followed in the next decade, and also that of influenza according to some observers. Although these organisms were discovered, it took the profession some time to realize that such minute particles could be of any importance. I was present at a conversazione in London at which a tubercle bacillus was shown under the microscope shortly after its discovery. This exhibit was of such interest that it was necessary to queue up in order to see it. Immediately in front of me was a member of the staff of one of the large London hospitals, who after looking down the microscope turned to a friend and said: "One can hardly believe that anything so small can do so much harm!" That bacillus at that time was killing about forty thousand people a year.

Having found their organisms, the next question was to study how immunity to diseases produced by bacteria could be effected, and it was found that it could be accomplished by attenuated infection. In 1884 Metchnikoff proved his theory of phagocytosis. One of the most important investigations followed, viz. that of the toxic effects produced by the bacteria. This led to the inquiry into immunity against toxins, and the result was the discovery of the antitoxic action of the serum obtained from animals immunized against certain toxins such as those of tetanus and diphtheria. This, again, led to the introduction of one of the most valuable therapeutic agents of the age, viz. diphtheria antitoxin. It is now nearly forty years ago since the introduction of this most important and life-saving remedy, and it would be difficult for anyone now to realize the extraordinary boon that

it was at that time. The mortality of diphtheria was something like 85 per cent., and it was not uncommon for two and sometimes three children in a family to die in two or three days, to say nothing of the agony the children suffered from slow suffocation. This remedy has practically abolished the operation of tracheotomy. Cases of diphtheria in those days were treated in the wards, and this operation fell to the lot of the House Surgeon. Occasionally an adherent plug membrane had to be removed by suction through a tube, which sometimes cost the operator his life. The next year saw Marmorek bring out the anti-streptococcic serum, which, though the earliest, has remained one of the most frequently used of that class of preparation. Widal's test and the demonstration by Sir Almroth Wright that vaccines injected induced a condition of active immunity after infection had occurred soon followed.

It is only necessary to mention the conquest of the tropics: the work of Manson, Ross and others on malaria, yellow fever and other diseases, which has so revolutionized the countries known only a few years ago as the White Man's Grave that they are now included in the list of places to be visited in the "round the world" pleasure cruises.

Another discovery of great interest and importance was that of the spirochæta pallida and the Wassermann reaction. The improvement in the modern treatment of syphilis has to a great extent robbed this disease of its horrors. Whether there are a large number of cases of syphilis still extant and whether the clinics absorb them I cannot say, but speaking from my own experience in practice during the last few years,

syphilis appears to be very much on the decline. But it is to congenital syphilis and especially in regard to those cases in which it remains latent far beyond the ordinary accepted period of the first seven years of life to which I would refer.

Some years ago I read a paper before our district branch of the British Medical Association on a case of congenital syphilis in a girl of twenty-three. Both she and her mother affirmed that until three years before she had been in good health. After that she developed a stuffiness in the nose, some pain and soreness in her throat, and dysphagia and a swollen knee-joint. When I saw her she had most typical syphilitic disease of the nose with perforation of the septum and masses of purulent crusts. One-third of her epiglottis was eaten away, and she had a typical syphilitic knee-joint with melon seed bodies. I satisfied myself that this girl had not acquired syphilis, but the magic way in which her nose cleared up with liquor hyd. perchlor. and rapidly increasing doses of pot. iod. left no doubt about the diagnosis. When writing my paper and looking up the bibliography of the subject, I could only find three other cases on record of congenital syphilis in which the symptoms did not show themselves until the twentieth year. I am persuaded in my own mind that there must have been many more, and that when symptoms do not appear until late adolescence or early adult life some of these cases are entirely overlooked, especially those limited to the central nervous system. To illustrate what I mean I cannot do better than tell you the story of a pathetic domestic tragedy. I knew this case personally, but was in no way responsible for her professionally.

A young lady passed through her childhood and teens and reached the age of twenty-two. She had shown herself at school to be well above the average in intelligence, she was good-tempered and possessed an amiable disposition. Later, when assisting her mother in entertaining, she was a delightful hostess. In addition to all this, although it has nothing to do with it, she was one of the best horsewomen in her county. At the age of twenty-two she showed signs of an irritability and temper which hitherto had been foreign to her nature and which in course of a year or two became pronounced. Later she presented a new phase in her character, and would drive into the nearest town, and if she saw and took fancy to anything in a shop, such as a fashionable dress, totally regardless of the cost, she would purchase it and put it down to her father. On one occasion she bought a beautiful tea service of some expensive china. Her father was not of the best-tempered, and after the bills came in you can quite understand that the domestic atmosphere was somewhat blue. It never occurred to anyone around her that she might be suffering from some incipient disease, and there *was* some excuse for this, because in the intervals the girl could be quite charming. This is confirmed by the fact that a great friend of hers, who had known her for some years and who apparently saw no change in her disposition or manner, proposed to her and in due course married her. He little knew what he was letting himself in for, but he soon found out. After the marriage he was remarkably good to her, but she became absolutely impossible. To make the story short: after two years of married life she contracted a chill and was attended

by a medical man. He does not appear to have ever suspected there was anything else the matter with her than the chill, and after attending her for a fortnight he advised her to go away for a change. The husband by this time was absolutely fed up, and he decided to leave her. He wrote a note in which he handed over to her the house and furniture, told her she was mad or bad, he did not know which, but that he would never live with her again. This was given her on her return. She made some attempts to win him back, but these were futile. She then attempted to plant herself on a married brother who had not the accommodation to spare, but when he refused to take her in she sent him the most insulting post cards. As he was rector of the parish, this was a matter which he could not ignore, and he gave in. However, she became rapidly worse, and at length was seen by a mental specialist, who immediately certified her, and she was removed to an asylum. She died three years after admission. Her brother fortunately insisted on a post-mortem. He was informed that she died from syphilitic disease of the brain. The membranes were so thickened and so contracted that the brain itself was to all intents and purposes annihilated. This case, I think, is sufficient to illustrate what I wish to impress upon you, that congenital syphilis may be and is sometimes entirely overlooked. It is also of great interest as showing the course run by congenital syphilis when untreated. In this particular case, had it been suspected, the diagnosis would have been quite easy. On inquiring into her family history it would have been found that her father had had syphilis, had been overtreated with mercury until every tooth in his jaws fell out

and he lost every hair from his head, and he died one year after this girl was married of a ruptured aneurism of the aorta.

I had a very similar case in my own practice a few years ago, but I only mention it to warn you not to rely upon a Wassermann. Do not imagine that I wish to infer that every cantankerous triangular old maid is the subject of congenital syphilis. But amongst those people who are impossible to live with and who are on the border-line, I am sure that many would derive far more benefit from large doses of pot. iod. than from psycho-analysis.

In November, 1895, another discovery in science was made which has been of inestimable value in medicine and surgery. In November of that year Röntgen was experimenting with a Crookes's tube in the Department of Physics in the University of Würzburg. On shading it with his hand he was astonished to find that a shadow appeared showing distinctly the bones of his hand. This was the beginning of X-rays. I was present at the first lecture given on this subject by Sylvanus Thompson in 1896. At this lecture the X-rays were passed through a closed compass box, and the shadow of the set of compasses was seen on the screen; a man with a fish-hook in his leg, which had been there for twenty years, was also screened. To be able to see the shadow of the set of compasses through the closed box was considered something marvellous. But the actual skiagrams in those days were very crude. Owing to the weakness of the rays and the poor apparatus the exposure was necessarily very long, and in a medical journal of 1897 there is a statement that the exposures

of an hour or more were trying to the patient and that the body heat tended to melt the gelatin off the photographic plate. Its value now as a help in diagnosis and in other ways is so well known that it is only necessary to mention it.

Amongst the list of invaluable new remedies may be mentioned radium, massage, remedial exercises, ionization and diathermy, ultra-violet and infra-red rays, and one other remedy which can be obtained by the just and the unjust without money and without price, but which has, in my opinion, done more to raise the standard of the nation's health than anything else, and that is "open air."

I cannot allow obstetrics to pass without saying a few words about them. Like many others, in my early days I had to use midwifery, unremunerative as it was, as a means to a practice. Young members of the profession to-day arrive at that goal through the much easier and more pleasant means of the Panel, and unattractive midwifery is left to midwives. During the past few years obstetrics have been very much in the limelight, and one is continually reading in the daily papers something about the dreadful mortality. All the remedies suggested to reduce this mortality appear to me to be directed to the elaboration of the surroundings of the case, and no emphasis is laid on the fact that the responsibility for this mortality rests with the attendance and after-attention of the case. The point I wish to stress to-night is that, in my opinion, surroundings have nothing whatever to do with maternal mortality. It was only the other day that I came across a new book by Munro Kerr on *Maternal Mortality and Morbidity*. I only

had time just to dip into it, but the first thing which attracted my attention was a table of the mortality from 1855 to 1930.[3] From 1855 to 1864 the mortality per thousand of live births was 4·7, of which 1·6 were due to puerperal sepsis. From 1925 to 1930 the rate was 4·2, and that with a much lower birth rate, and of these 1·7 were due to puerperal sepsis. These figures are astonishing and require some explanation. The maternal mortality of the present day is only 0·5 less, whilst that from puerperal sepsis is actually 0·1 higher than it was in 1855. That is before the aid of antiseptics. This confirms what I have said: that surroundings have nothing whatever to do with maternal mortality, and also to prove this I will, in spite of the risk of being thought egoistical, relate my early experiences of midwifery.

When a student at St. Bartholomew's we were sent out into the slums to do the twenty confinements required for examination purposes, and the only qualification necessary was that we had read, marked, learned and inwardly digested a little book written by a Clifton doctor known as *Swayne's Aphorisms*. Out of my twenty I only had one difficult case, a very small woman with a contracted pelvis who had gone on to full time. Ante-natal clinics were unknown then. I allowed her to have some pain for a short time to see if anything would happen, but finding they were useless I fetched the midwifery assistant. The pelvis was so small and the child so large that he decided that it would have to be removed piecemeal. Now in these days this woman would have been removed to a hospital, she would have had a Cæsarean section, performed under the most up-to-date aseptic methods

and in an operation theatre with all the latest appliances. Well, this little woman was operated upon in a small, dirty room in a typical London slum by the midwifery assistant in his shirt sleeves, and I gave the anæsthetic in my shirt sleeves and rendered him all the assistance I could. The operation lasted over three hours. Were I to relate this case to any of the thousands of people who are continuously reminded in the daily papers of the still lamentable maternal mortality they would at once exclaim: "Poor woman, of course she died!" Not at all. In a month she was about doing her ordinary work, and she caused me no anxiety whatever.

During the first few years I was in Clifton I did a few hundred cases of midwifery in the Hotwells and Clifton Wood. In very few, if any, of these had I a nurse who was entitled to call herself a trained nurse. I never allowed these people to have anything to do with the patients during confinement. I did everything myself, including the bathing. I did not leave the house until I was satisfied that the patient was, as far as one could judge, aseptic. Every one of these cases was visited for four consecutive days after the confinement, and off and on for a further fortnight at least. If there was any after-treatment to be done in the way of douching I always did it myself. The result was—I say it in no boastful spirit—I never lost a case, and only on about four occasions do I remember having any fever which caused me anxiety. In favour of my views I may quote from a little book published in 1773, written by a Dr. Charles White, a Fellow of the Royal Society, on the management of pregnant and lying-in women and the means of curing

and more especially preventing the particular diseases to which they are liable.[5] He states there that he had never lost a case by puerperal sepsis. He attributed puerperal sepsis to the effects of mismanagement by the accoucheur or nurses, or else arising from the patient's own imprudence. Nothing could emphasize the importance of the personal element more than the experience of Semmelweiss of Vienna, who has been called the forerunner of Lister.[5] In the year 1846 Semmelweiss lost 459 cases out of a total of 4,010 healthy young women, that is to say, 11·4 per cent.[2] He found no satisfactory explanation of this mortality in such causes as overcrowding, fear, mysterious atmospheric influences, or even contaminated wards. Just about this time he lost a friend through a poisoned finger, and this suggested to him that in his cases the poison might be carried to the patient. So he insisted that every student, every attendant, every nurse should before they approached his patients in future thoroughly wash their hands in a solution of bleaching powder, no change being made in their surroundings. This alone reduced his mortality to 45 out of 3,536 cases, that is 1·2 per cent.

It has been said that a confinement being a physiological and not a pathological process, the element of carelessness is apt to creep in; if so, this is to be deplored. In discussing this matter with Dr. Askins, our late Medical Officer of Health, he told me that maternal mortality was greater than that of the major abdominal operations. Quite so, but if everyone attending a confinement went about it in precisely the same manner as a surgeon does a major abdominal operation the result would probably be different.

Having enumerated these remarkable discoveries in medical knowledge, one naturally asks why all this should have been reserved for the latter part of the nineteenth century. There are two reasons. One is the absence of the microscope, and the other is the late period at which the dissection of the human body was commenced.

With regard to the micro-organisms, it is obvious that their discovery was not possible until the invention of the modern microscope. Leeuwenhoek in the seventeenth century invented the one-lens microscope, by which only the largest micro-organisms and animalculæ could be seen. It was only when the compound microscope (which I believe I am right in saying was first invented by a spectacle maker, Jansen, a Dutchman, in 1590) and when to a very much improved model of this Abbe added his sub-stage in the early part of the latter half of the nineteenth century, and when water immersion lenses were invented by Hartnack, 1855, glycerine immersion by Grunlach, 1867, and the oil immersion lenses by Amici in 1869, that it became possible to identify the more minute of the bacteria.

The failure of the ancient physician to attain to our knowledge of the common diseases could not be attributed to a lack of genius. Has any genius ever excelled that of Hippocrates, Aristotle, Galen, and many others ? But whatever their genius, they could not arrive at any exact medical science without a fundamental knowledge of anatomy and physiology, and this was denied them because the dissection of the human body was forbidden. The Greeks disallowed it. The Egyptians certainly did some in a desultory

manner, mostly following the disembowelling and embalming of the dead. During the Mediæval Ages the Arabs held it to be unholy and unclean to touch a dead body, and the Church forbade it; consequently, after the time of Galen very little advance was made in medical science until the end of the Mediæval Ages. Galen dissected the ape, dog, ox and pig, and it was believed that the structures of the human body were identical with those of these animals until the time of Vesalius, 1543, who first seriously dissected the human body. Galen's views were very much respected by the Church because his belief was that all structures in the body were formed by the Creator for a known and intelligible purpose, and this view appealed both to Christians and Mohammedans alike. When Vesalius commenced to expose some of the errors of Galen the Church was very indignant, but Vesalius persevered and convinced them that the hip bones of man were smaller and narrower than Galen supposed. But the Church still maintained that Galen could not have been mistaken, but that the bones had changed since his time owing to men having taken to the fashion of wearing tight trousers.

But, apart from all serum and vaccine therapy, have we not gone back to the rational treatment of Hippocrates? There were two hundred and fifty odd drugs known in his time, but he used very few of them, and relied on the healing power of nature, hygienic living, fresh air, rest, diet and regulated exercises and baths. Is this not to all intents and purposes the treatment of to-day?

Our next question is: In what way has all this new knowledge of infectious disease, its treatment and

prevention, affected the population and mortality of the nation? In order to appreciate this you must allow me to give you some details of the pestilences of ancient times. In those days disease and pestilences were regarded as an inevitable affliction of mankind, the visitation of the Almighty for the sins of the people. And this idea was encouraged by the Church and accepted by the people. The main diseases were: leprosy, typhoid fever, typhus fever, and the plague. But for terrible mortality the last was the most responsible.[6] The plague raged from time to time from A.D. 79 to 1665. In the year A.D. 164 it commenced in Rome and raged for sixteen years, and at its height killed as many as ten thousand people in one day. Again, in Constantinople the plague from A.D. 524 to 594 took a toll of one million lives. The epidemic which started in Africa and Asia in 1345 and two years later appeared in Constantinople, Italy, Greece and England, and was known as the Black Death, lasted with short intervals until 1655—a matter of three hundred years—and killed one-fourth of the population of the entire world. No one at this time ever dreamt of the real cause of the plague. It was not until those marvellous few years at the end of the nineteenth century that the blame was definitely put upon rats, and it was found that fleas leaving the dying rats infested man and gave him the disease. Had we not this knowledge, we should be as defenceless against the disease as the people in London in 1665.

It is obvious that in those days, when pestilence was continually decimating the population, to compensate for the prodigious mortality you must of

necessity to keep up the average population have a prodigious birth rate. The necessity for this has long passed. Both our annual infant and other mortality is very low. All the recent discoveries in medicine must therefore tend to produce a surplus population. But this is not all. All these recent discoveries are used to foster the survival of the unfit.[7] In an interesting article written by Dr. A. F. Tredgold on eugenics in the *Cambridge University and Medical Society's Magazine* he calls attention to the fact that "in ancient times the severe struggle for existence was the natural condition of affairs, and that those who were better able to secure their food and escape being killed by other creatures survived and propagated their type." In other words, this was a survival of the fittest and led to a progressive evolution. "To aid this man in those days established a custom for children and adults who were defective or deformed in body or mind to be put to death or to be expelled from the community—which means the same thing. As civilization advanced we find firstly an accumulation of new knowledge, and secondly the growth of the humanitarian sentiment. The latter has led to the abolition of the putting to death of delicate infants and the establishment of ante-natal clinics, lying-in hospitals, midwifery services, infant welfare centres, school clinics, national health insurance, hospitals, sanatoria, convalescent homes and the like. In fact, it has applied the whole resources of medicine to the combat of diseases and the saving of life. The result of this is that at the present thousands of children are born and survive who otherwise would have perished." No doubt some of you saw the statistics of Sir George

Newman on the nation's health, published last month in the daily papers. In this he tells us that in 1900 of the infants under one year 142,912 died; in 1930 only 38,908. As he computed it this was an increase of 40,000 lives each year during the decennium 1921–1930 over and above the decennium 1901–1910. Now although many of these lives saved may prove to be those of efficient citizens, it is equally true that many are inherently defective, mentally and physically. Defectives mate and their families are increasing, while those of the normal people who are the backbone of the nation are decreasing. In fact, as Dr. Tredgold says: "Increased medical knowledge, humanitarian sentiment and social legislation have combined to favour the survival and propagation of the unfit." Such being the case, and there being no pestilences to produce great mortalities, is it surprising that we have a surplus and decadent population to provide work and food for which is the nightmare of all governments? However much the Church, public sentiment and moralists may be against it, I am convinced that in the next generation the question of eugenics must come to the front, and sooner or later some action will be taken to deal with the question of over-population, which invariably leads to unemployment, suffering, pauperism and crime.

And now lastly, with all our increased and actual knowledge of the cause, nature, treatment and prevention of disease, our manifold and more precise methods of diagnosis, why is it, I ask, that concurrently with all this quackery of sundry and divers kind, faith-healing and healing by fancy religions is as rife as it has ever been in the history of the world? There

is one thing to be considered, and that is that the subject treated by our profession differs in a material way from that of any other profession. A barrister has to deal with the law, and although he can mould it to make it mean anything he wishes, it cannot answer him back or contradict him. But the subject we have to deal with is a living one, it has a will of its own, a temperament, ever-varying moods, joys, sorrows, emotions, fears, superstitions and a religion. Is it surprising that there are still people in whom we cannot inspire confidence ?

Working on these emotions and superstitions from the beginning of human history and down though all the ages to the present day, quackery has flourished. Just for the sake of comparison with the quackery of to-day I would like to quote an extract from the writings of Rhazes, the famous Arabian physician who lived about 925, with reference to the charlatans of his time. He says: "There are so many arts used by the mountebanks and pretenders to physic that an entire treatise would not contain them. Their impudence is equal to their guilt in tormenting people in their last hours. They profess to cure the falling sickness—epilepsy—by making an issue at the back of the head in the form of a cross. Others give out that they can draw snakes out of their patients' noses or worms from their teeth."

In these days we have osteopathy, chiropraxy, the spiritual healer and the Christian Scientist.[8] As Dr. F. M. R. Walshe states: "It is now not a question of electric currents and magnetism, but of imaginary vertebral subluxation, conveniently too small to be revealed by radiography." "These vertebral

subluxations," we are told, "encroach upon the intervertebral foramina and thus interfere with the blood supply to the organs and with the conduction of nervous impulses along the spinal nerves. We are assured by the exponents of this art that all ills our flesh is heir to and all our diseases are simply the various clinical manifestations of vertebral dislocation. Therapy consists in the reduction by manipulation of these abnormalities and generally with a click." I have been told by a manipulator that even paralysis agitans was cured and sleepy sickness is said to be much improved, the trouble being that one vertebra was pressing on the nerves. In one of my cases a woman suffering from recurrent scirrhus in the cervical vertebræ was said by one of these manipulators to have a dislocation of her neck, and this was reduced with a click heard distinctly by her friends all over the room, and they were all convinced (although she died shortly afterwards) that the neck must have been out because they heard such a loud click when it was put back. Another case of persistent sciatica, which had been treated by a specialist in Harley Street, was taken to a manipulator who immediately called attention to the fact that her spine and ribs were out of line, and he proceeded at once to put them straight, and the patient had no doubt about the correctness of his diagnosis because of hearing the grating of the bones as they went into position. But these manipulators do not always confine their attention to the vertebral column, as the following case which came to my knowledge proved. A woman who was suffering from abdominal pain and distention consulted one of these manipulators. He assured her that she had

two or three tumours of the womb which he could massage away through the vagina, but it would take some time. Massage of the lower part of the abdomen was accordingly carried out from time to time, she being assured each time that the tumours were getting nearer to the outlet. At length one day the massage was commenced, and he announced that the tumours would soon be delivered, and shortly afterwards he produced two round red bodies and informed the patient that there they were at last! I leave it to you to say who was the more mendacious and blameworthy: the man who in the twentieth century professes to draw two tumours from the womb through the vagina, or the man who in the tenth century asserted that he could draw snakes from his patient's nose and worms from his teeth.

I regret that I have not time to go further into this matter, but I would only say that whilst man is as he is and as described by Southey, "a dupeable animal whose credulity is too strong to resist the impudent assertions of the quack, credulity meaning belief without reason," quackery and faith-healing will still flourish.

I could not close an address of this nature without referring to two innovations which have been of the utmost value to the general practitioners in convenience and the saving of time—the telephone and the motor-car. The motor-car was unreliable at first, and we have heard of practitioners who kept a horse and trap for urgent messages and the motor-car for ordinary work, because if he started in his motor in response to an urgent call he could not rely on reaching his patient without first correcting some engine trouble or mending a puncture. However, in a few years there was a

great improvement in motor-cars, and as the late Lord Dewar once said: "Motor-cars were increasing by leaps and bounds and pedestrians survived by the same procedure."

I will only say one or two words in conclusion. What the status of the general practitioner will be in the future one cannot say. Personally, I think specialism will increase, and although I should be very sorry to see it, I fear State Medicine also will, but whatever happens I hope that we shall live up to the traditions of the practitioners who have gone before.[9] No man ever had a higher opinion of his own profession than Sir William Osler, who said that in no other profession is there to be found so large a number of men who have combined intellectual pre-eminence with nobility of character, or who have shown such patient devotion to duty and high ideals. The friend of humanity trusted by rich and poor alike, the physician lives up to the best traditions of an ancient and noble guild. When the work of such a one is over, who can help being reminded of those lines:

"Life's race well run,
Life's work well done,
Life's crown well won,
And after—peace!"

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VAGINAL DISCHARGE.*

BY

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ALTHOUGH there can be few conditions which are more common, there are few which are less responsive to ordinary treatment than a chronic vaginal discharge. Most of the women who attend my Out-patient Department complain of some discharge to a greater or less degree, and I find that very many of them consider some amount of muco-purulent discharge to be normal. In patients of a better class the condition is not so common, and they complain much more bitterly about the necessity for wearing a pad. I think that some degree of pathological vaginal discharge is present in about 30 per cent. of parous women, when we include all the great class who are none too cleanly in their habits and who do not come to hospital or to their own doctor until the discharge assumes serious proportions.

It is important to realize that there is a physiological and normal discharge from the vagina and vulva, and that this is very variable in quantity and consistency, so that what one patient may consider quite natural

* A Paper read at the Meeting of the Bristol Medico-Chirurgical Society, held on November 8th, 1933.

will be a nuisance to another. This also applies to changes in the quantity of normal discharge in the same patient, which may cause her much concern, although there is no pathological condition present.

The normal secretion which appears at the vulva mainly originates from the cervical glands, which secrete a tenacious mucus; this should be absolutely clear and transparent. There is also a curd-like exudate from the vaginal vault mixed with epithelial debris. Bartholin's glands secrete a small quantity of clear lubricant fluid, and there may be a little endometrial secretion as well. In the vast majority of normal women the clear cervical secretion is the only one appreciable, but one meets occasionally those in whom the curd-like exudate is quite excessive and may be discharged in lumps as big as peas; this is commoner during a pregnancy than at any other time.

A smear from the vagina in a perfectly normal case will show numerous acid-forming bacilli (Döderlein) and large rods, and these are said to keep the upper vagina free from contamination by means of the lactic acid formed. Should an infection take place the normal flora will disappear and be replaced by the invading organisms, which are usually present in a greatly mixed infection. I regard this as a most useful finding, for it is well known how difficult it is to eliminate the possibility of gonococcal infection when smears are reported negative. Dr. Fraser drew my attention to the fact that we had never found a specimen of gonococcus in a smear with the *normal* flora and organisms present, and this has been carefully followed up through many hundred examinations at Out-patients and, as far as I know, has never yet

caused us to miss a definite infection. I do not, of course, imply that the opposite finding has any value (*i.e.* the absence of normal flora means gonorrhœa), but I feel sure that the simple fact that the normal flora are present precludes the existence of a gonococcal infection.

The presence of a pathological vaginal discharge is usually known as leucorrhœa, and the following varieties may be described :—

(1) *Excess of normal discharge.*

This is common in conditions of anæmia and poor nutrition, and also in young girls in whom the sexual function is developing rapidly, *e.g.* the newly married.

(2) *Purulent and mucopurulent discharge.*

Due to acute, or chronic, bacterial infection of the cervix. In rare cases due to rupture of Bartholin abscess or pelvic abscesses.

(3) *Serous discharge.*

Thin and watery in consistency; is very suggestive of carcinoma in an early stage.

I am not now considering the foul discharge from carcinoma, putrefying abortions or sloughing fibroids, and, of course, bloody discharges are not included in the term "leucorrhœa."

VULVITIS.

If we now consider the *clinical* varieties of leucorrhœa we are at once struck with the fact that a discharge, due to an infection of the *vulva*, is very uncommon, except in young children, in cases of acute recent gonorrhœa or in the sloughing phagedæna of old women known as "Noma." *In young children*

the vulva is frequently inflamed and becomes red and excoriated and bathed in purulent discharge. This is often due to infection from the bowel contaminating small abrasions and injuries, caused during active play by friction from unclean clothing. The presence of thread worms and consequent scratching must be remembered. There are always a number of gonococcal infections under treatment at the V.D. Clinic among children of school age, and an occasional diphtheritic infection is seen.

The *acute* gonorrhœal infection is fairly obvious, and, to my mind, the most constant symptom is the presence of urethritis. This is seldom seen in any other type of infection. Careful examination of smears will almost always confirm the diagnosis at this stage, but the films need careful searching, since the secondary infection is always very heavy in the early stages.

VAGINITIS.

A real vaginitis is extremely rare in adults. It occurs in elderly women, causing desquamation and exudation, and is often followed by a cystitis of a most intractable nature. This is the well-known "senile vaginitis"; in all cases it needs careful watching, and it is quite often associated with carcinoma of the body.

Some cases of acute vaginitis closely resemble gonorrhœa, but show a frothy and bubbly discharge in the upper part of the vagina. This very strongly suggests infection by "trichomonas vaginalis," a condition which is diagnosed at once by looking at a drop of pus and saline, when the organism can be seen waving its flagellæ. I am sure I have reviled

the pathologist many times in bygone days for missing the gonococcus in such cases, which I had considered to be typical gonorrhœa, for the trichomonas cannot be detected in dry smears. It is interesting to note that I have found six cases in the last eight weeks, and I never worried to look for them before. The pathogenicity of trichomonas is not yet certain, but an investigation still proceeding points strongly to the fact that this organism may become pathogenic at times if, indeed, not always so.

CERVICITIS.

I now come to the leucorrhœa due to *infection of the cervix*, and this is by far the commonest variety. The infection always involves the mucous membrane of the cervical canal, the vaginal surface of the cervix, the deep cervical glands and, to some extent, the muscle tissue. It invariably involves the bases of the broad ligaments into which the glands and lymphatics drain and causes induration and thickening, and so brings on backache and dragging pain. In some cases it leads to compression of the ureter and consequent chronic backache. When an infection gains a footing in the cervix it starts, as a rule, by causing an acute catarrh of the endocervical epithelium. This causes swelling and eversion of the external os, and the catarrhal changes pass on to the squamous epithelium of the vaginal cervix. An acid mucopurulent (or acute purulent) discharge is poured out and the stage of desquamation begins, causing the squamous epithelium to be shed, and so forms a raw area about the os. As the acute infection subsides, this raw area may be covered over by the down-growing epithelium

of the cervical canal. This epithelium is columnar in type and accompanied by numerous glands. In consequence a patch of red spongy columnar epithelium appears all round the os. The glands are soon infected, since they are now on the vaginal portion of the cervix, and the red area is bathed in muco-pus forming the well-known "cervical erosion." This may grow out towards the vaginal surface and be "papillary" or dip into the cervical tissues and be "follicular" in type. In any case the "erosion" is *not* an ulcer, but is an overgrowth of columnar epithelium and glands, and these remain infected while exposed in the vagina. It is quite obvious that this condition will keep up a continuous mucopurulent discharge, and also continuous infection of the cervical canal.

In cases where the cervix has been badly torn the canal will be patulous, and the erosion, due to the swollen and infected mucosa, will spread widely over the enlarged os and may form a very large and spongy area, giving rise to the suspicion of carcinoma. At a later stage the local patches of hypertrophic mucosa may be protruded and hang down to form the well-known mucous polypi.

DIAGNOSIS.

If the cervix be inspected with a speculum and the os is seen filled with *clear* mucus there is practically certain to be no infection present. This is a most useful clinical test, and I find it very reliable. Mucopurulent discharge always implies a mild degree of infection and may, of course, be of very little importance, *e.g.* a mild coli or staphylococcal infection. In every case the question of gonorrhœa

must be quite definitely settled. An old gonorrheal infection may settle down to quite a mild, non-irritant leucorrhœa, which, however, will prove intensely infective if the patient should marry, constituting a source of grave danger from infection at pregnancy and most liable to set up subsequent salpingitis.

This question of the elimination of gonorrhœa has caused me much anxiety, and I find the following method the most reliable at present: from every out-patient who has a mucopurulent discharge, a smear from the urethra and another from the cervix is taken. In *acute* cases a swab is sent, so that a culture can be made if the pathologist thinks fit. The report from Dr. Fraser states (*a*) the main organism found, (*b*) the presence or absence of the gonococcus, *and* (*c*) *the condition of the normal* vaginal flora. All cases of proved gonorrhœa are sent to the V.D. clinic. All other cases are treated at the gynæcological out-patient douching clinic, details of which I will give presently. Doubtful cases have the smears repeated. The complement deviation test is of the greatest assistance in doubtful cases, as are also properly made cultures.

TREATMENT.

I am not proposing to consider the treatment of gonorrhœa in this paper, and so I will pass on to the treatment of cases of cervicitis in which this infection is not found to be present. These fall into three groups :—

1. *Those without erosion.*—These cases attend regularly at the "Douching Clinic." There, there are two nurses who treat all cases daily. There is an ample

supply of hot water from the mains, and proper arrangements for the run-away of douche fluid, a gynæcological chair being used. A douche of warm saline lotion is given with a fenestrated speculum in place to dilate the vagina fully. This is most important, for the vagina tends to pocket and retain areas of infected pus and mucus unless fully stretched out. The whole vagina and cervix are then thoroughly swabbed over with 1 per cent. mercurochrome—there is no need to use it any stronger. The treatment is repeated once daily until the symptoms improve. The relief is so great and the improvement so rapid that very few patients fall out before they are well. In some cases a change from mercurochrome to flavine will hasten the recovery. An occasional case proves very difficult, the symptoms recurring directly the treatment has been stopped. I am indebted to Dr. Todd for calling my attention to a method of treatment for these which is almost infallible, viz. using 20 per cent. argyrol as a pack to the cervix and vaginal vault on alternate days, with saline douching on the intervening day. In trichomonas infection we are trying the picric treatment, advocated by Goodall of Montreal.[1]

2. *The cases with erosion, and but very little or no injury to the cervix.*—These cases are treated as in the last group for about ten to fourteen days. If at the end of that time there is not a rapid improvement the patient is passed on to what is popularly known as the "burning department." An electric cautery point is used to draw lines radiating from the os outwards across the erosion. This is practically painless, and never necessitates an anæsthetic, unless

the patient is so nervous that she jumps about and so gets the hot cautery on the vaginal wall! I have done a great many of these cauterizations without ever having any difficulty with the patient, and the fact that they return willing for further treatment shows how little they fear it. It is advisable to put the point in cold and let it heat up on the cervix rather than let the glowing point be seen before it is inserted in the vagina. As a rule, two or three applications will cause the healing of the largest erosion. The routine treatment is continued until the cervix appears normal. It is very important to grasp the fact that some discharge will go on for as long as the douching is kept up. The treatment must never be continued for more than four weeks without stopping it for two or three days to see the result. Continuous hot douching is one of the curses of gynæcology, and is the cause of the continuance of many cervical catarrhs which clear up like magic when the douching is stopped. All resistant cases are examined at intervals for gonococcal infection, especially after a menstrual period, and are seen by myself or my house surgeon every two weeks.

3. In the third type of case, viz. *leucorrhœa, with severe laceration of the cervix*, I think there is no doubt that operation is urgently needed. The combination of laceration, erosion and chronic cervicitis is leading definitely to carcinoma of the cervix. In young women I prefer to repair the cervix, as I think this small operation gives the best results in subsequent pregnancies. In women about the menopause, or over, I amputate the cervix, and in cases of diseased cervix with descent of the uterus I perform a vaginal

hysterectomy and repair of pelvic floor according to the technique of Mayo and Ward. I have never yet regretted performing this operation. These methods were described by me at the British Medical Association Meeting in Manchester in 1929, and after six years' experience I am still quite satisfied with the results.[2]

It will be obvious from this that I do not think it possible for any patient to treat herself really efficiently. She *must* be treated by a competent nurse and be under constant medical supervision. I send those of my private cases who can afford the small fee charged to a nursing home for daily treatment, or else give them written instructions for the district nurse, and insist on the great importance of seeing their own doctor at frequent intervals, so as to avoid the establishing of the douching habit. I would like to harp once more on the danger of a patient douching herself for months and years and keeping up a flow of mucoid secretion from the cervix which is constantly stimulated by the supposed "treatment." The cauterization of an erosion is so simple that I feel sure anyone can do it in a private consulting-room, and its efficacy is remarkable.

Complications.—Backache and dragging pains are complained of in about 70 per cent. of the cases seen in the Out-patient Department. I consider this is due to the infection of the bases of the broad ligament. The cervix acts in very much the same way as does the tonsil. It is a superb microbe trap, and the passage of organisms through the *intact* internal os is extremely rare. Even gonococcal cases seldom acquire endometrial or tubal infections, unless they have experienced an abortion or parturition since infection,

or unless probes or other instruments have been passed up the cervical canal in mistaken and mischievous methods of treatment. In 150 cases of gonorrhœa in nulliparous women we only met five cases of salpingitis, but the incidence in parous women is definitely higher, being 10 per cent. at least. This fact explains the backache and dragging pain. The cervix, acting as the pelvic "tonsil," has to deal with these severe infections. It becomes swollen and its extensive lymphatic system is infected also. The parametrial tissues swell and become very tender, and the weight of the uterus and pelvic viscera, which was previously quite imperceptible, now becomes the cause of much discomfort owing to the pull upon the tender and swollen tissues. Dyspareunia is very common for the same cause. Here again *hot* and prolonged douching works miracles! The douche *must* be as hot as possible and last at least ten to fifteen minutes. This needs two gallons of fluid, and it is obviously impossible for a patient to manage this large quantity of fluid at home, using ordinary methods of douching. The problem is easily dealt with, however, if there is a bath and hot water supply in the house. The patient lies in a warm bath and hangs the douche can to a convenient nail: it can be filled repeatedly from the hot tap. The back pressure of the bath water prevents a too rapid flow, and the result is quite satisfactory. This is, in fact, the method used at various spas under expensive and high-sounding denominations.

In cases with much œdema complete rest in bed with daily hot and prolonged douching is indicated (tampons of antiphlogistine may be carefully applied

to the cervix and fornices in selected cases), the pelvic colon being kept empty so as to avoid pressure on the tender pelvic organs. I strongly dislike tampons of glycerine, or of glycerine and ichthyol: they pen up secretions and form pools of acid purulent fluid, into which the cervix dips, and so favour the formation of erosions by causing desquamation. I feel sure they do far more harm than good.

A later complication is due to the contraction of the thickened and inflamed bases of the broad ligaments. This causes constriction and kinking of the ureter and back pressure with mild infection in the kidneys. This is a very definite pathological condition, first described by Hunner, and a simple ureteric dilatation, repeated if necessary after four weeks, will bring great relief to many of these otherwise intractable backaches.

The acute ascending infections causing salpingitis and peritonitis are quite obvious and only need distinguishing from appendicitis. The essential point in the treatment is never to operate until the acute stage is over. The mortality of the condition has fallen from 10 per cent. to less than 2 per cent. by expectant treatment, operation being performed when necessary only after the temperature and pulse have fallen. This really lies outside the scope of my paper, and I must not discuss it further.

To estimate the value of out-patient treatment in these cases of leucorrhœa, I have tried to carry out a "follow-up" on the cases attending the Bristol Royal Infirmary, and the following is a summary of the result. The number is very small, but it represents the replies to over one hundred letters sent out, half

the patients having changed their addresses and the letters being returned through the dead-letter office. I have received up to date exactly fifty replies, and have divided the cases into three groups, viz. :—

1. Those with cervicitis and discharge and no other obvious lesion.

2. Those patients with an erosion in addition to the cervicitis.

3. Those patients with a definite pelvic peritonitis, chronic salpingitis retroversion, etc.

The results are as follows :—

Heard from or seen.

Group 1. *Simple cervicitis.*

Total number of cases, nineteen. Thirteen completely cured, five greatly improved, one no better.

Two out of the thirteen cured have had a further pregnancy since. Average duration of treatment thirty-one days (longest twelve weeks). Two cases were found to have gonorrhœa and were transferred to the V.D. Clinic. One case went mad and was sent to an asylum, but the other was so pleased with the result that she sent 5s. ! !

Group 2. *Erosions.*

Total number of cases, eighteen. Twelve completely cured, three greatly improved, three stopped treatment and reported "no better."

Of these, eight cases were cauterized : three once, four twice, and one three times. In one case the erosion recurred later. Four had a further family. Average duration of treatment, thirty days (longest eight weeks).

Group 3. *Pelvic peritonitis.*

Total number of cases treated, thirteen. Six completely cured, five greatly improved, two no better.

Four patients had a further family (one had three children in four years). In four cases lipoidol tests were done at a later date, and showed the tubes to be patent. Two cases needed abdominal operation during treatment. In three cases the condition recurred, and the patients were re-admitted at a later date for operative treatment.

So that a summary shows fifty cases: thirty-one cures, thirteen improved, six no better when treated as out-patients, and only five cases came to operation, all being in Group 3 (peritonitis).

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CONGENITAL WORD-BLINDNESS.

BY

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THE importance of this condition lies in the fact that the cases are by no means uncommon, and that if the condition is recognized the child is saved much misery and the parents spared the expense and trouble of endeavouring to educate a child who through no fault of his own is incapable of achieving the results that are expected of him. The child will often develop an inferiority complex, as he cannot keep pace with children of his own age, his classmates holding him up to ridicule and his teachers regarding him either as a fool or as one who will not take the trouble to learn. I have had a teacher confidentially explain to me that it is quite obvious that the child is not taking pains, and that there is no reason why a healthy, robust child, who is intelligent in everything but reading, makes such a bad performance. On the other hand, the child will say that he dreads reading lessons, particularly if he is asked to read aloud The following are two instances of this type of case :—

A healthy and intelligent-looking boy, aged 11 years, was brought to me with a history that, although he had been at school for four years, his reading was still atrocious, and his form-master felt that there must be something wrong with his eyes to account for the trouble. He was very good at

figures, and got on well with arithmetic; as a hobby he was very fond of mechanics, and he had an excellent memory. There was nothing of note in his family history, his parents had never had any trouble with reading, and his sister, the only other child, was quite normal. On questioning, the boy stated that he knew all his letters perfectly, but when they were put into words, particularly if these happened to be long, he seemed to have forgotten what the word was or what it meant. When he was asked to read aloud in class he had to go very slowly, and was able to get the meaning of the words much better if he was given time to spell them to himself. When he was reading to himself he found it much easier to spell the words aloud. He did not like books, and would never think of reading for pleasure, but he liked being read to, and had no difficulty in memorizing the contents of a book if he had not to read it himself. He could recognize quite normally objects, persons and places. Pictures of all kinds he recognized at once. On being given a simple reading test he appeared to take it as a foregone conclusion that he had encountered his old difficulty. He put the book first close to his eyes, then pushed it away and shifted it in different positions, as if he were trying to get a better light. On being questioned, he assured me that he could see even the smallest print with ease, and in order to make sure of this I asked him to spell one of the longer words; this he did with ease. On commencing to read he had no difficulty with the short, familiar words, but with unfamiliar words, even if they were short, he would hesitate, while with longer words he had to stop and spell them to himself. His vision was normal. There was no error of refraction, nor was there any abnormality in the muscle balance.

Another case occurred in a girl aged 10, who had been three years at school; she was robust and healthy in every way. Her mother stated that her birth was normal, and that she had had measles, chicken-pox and whooping-cough. There had been the greatest difficulty in teaching her the alphabet, and at the end of her first year's schooling she had not learnt it properly. She seemed to have learnt it several times, but had forgotten it, and even now she would sometimes forget what a letter was, particularly if it was part of a longish word. When I saw her she knew all her letters properly, and had no difficulty with the short, familiar words, but with longer ones and even short and rather unfamiliar words she would spell them out slowly to herself, and took some time to make

up her mind what they spelt. In her education the only difficulty that had been encountered had been this trouble with reading. Her general intelligence and memory were good. She was good at all handwork and sewing, and had no trouble with figures. She told me that she could see perfectly even the smallest print, and knew all the letters of a word perfectly, but that when the letters were put together in a word she could not remember what the word meant. Sometimes she would be better than at others, and on her bad days she found reading very difficult. She wanted to read, and had done her best to overcome her difficulty, but she disliked reading because she found it such hard work. If she could she always tried to get someone to read to her. Her eyes were sound and healthy, the refraction showing a small amount of hypermetropia which I corrected with reading glasses. There was no error in the muscle balance. I advised that this child should be removed from school and treated privately. She made excellent progress, and is now able to read fluently, but she tells me that even now when writing she sometimes gets the letters of a long word wrong because the sound of a word does not convey to her the necessity of forming it with its correct letters. She has frequent recourse to a dictionary for unfamiliar words.

It has been estimated by Thomas that one in a thousand children in the elementary schools suffer from this condition, and Fisher states that of thirty-three reported cases of congenital word-blindness twenty-four occurred in boys and nine in girls. In some cases heredity would appear to play a part.

Hinshelwood, in discussing the possible cause of this condition, states that the difficulty in learning to read is due to some congenital defect in the visual memory centre for words and letters in the left angular and supra-marginal gyri. In learning to read by sight there are two distinct stages. In the first stage individual letters of the alphabet are stored up. The memory for words is first registered in our auditory memory, that is, we are able to spell a word before we are able to recognize the word by sight alone.

When the individual has acquired in his visual memory a knowledge of the individual letters he is able to read words by spelling out aloud each letter and thus, by appealing to his auditory memory, he gets the proper word. The second stage in reading consists in the gradual acquirement and storage of the visual memory for words; when this is accomplished the individual reads by recognizing each word as a separate picture. In the cases under discussion the difficulty in reading arises owing to the fact that their visual memory for words and letters is congenitally deficient, the degree of difficulty depending on the state of development of the visual memory centre.

Fisher, on the other hand, suggests that all these cases are not congenital in origin, but may be due to birth injuries; that a history of difficulty at birth should be inquired into, and whether there is any history of paralysis, convulsions or fits.

In the diagnosis of these cases it is important to remember that the parents or school authorities assume that there must be something wrong with the child's sight to account for the difficulty in learning to read. When these children are being examined they must not be allowed to spell out the word letter by letter nor to move the lips silently, as by adopting these methods they assist their defective visual memory by appealing to their auditory sense. In a bad case the child may not be able to recognize a simple word of three letters, but he knows the individual letters and how to spell the word, and if he is given time to spell the word either aloud or by moving his lips he can say what it is.

As regards treatment, these children cannot be taught in a class with others. They have probably been at school some time before the defect is discovered,

and owing to their slowness may have been held up to ridicule by the other children and regarded by their teachers as those who will not take the trouble to learn, so that many of them have been made to feel that they are inferior to others of their own age. They must be taught alone, and it is surprising the progress that will be made if this is done by a teacher who is in sympathy with the child. The reading lessons should not be carried out for any length of time at one sitting, but a method should be adopted of short periods of work with intervals in between. There is no doubt that attempts at reading take a lot out of the child, and he rapidly fatigues. In the more severe cases large block letters should be used at first, as these are unquestionably more easily impressed on the child's memory. It will be readily understood that much depends on the type of person who is chosen to teach the child; she should, if possible, be interviewed by the doctor in charge of the case and all the circumstances should be carefully laid before her.

If these cases are recognized reasonably early, and adequate and considerate treatment is carried out, there is no reason why at a later date they should not return to school and enjoy the education of a normal individual. The time taken for these children to read reasonably well varies enormously, and many, after their education has been successfully completed, perhaps never read with the pleasure of a normal individual, while many others have all their lives more difficulties with spelling than is usual. It should be realized that all grades of this condition exist; the severe and obvious types are easily detected, but the milder cases are readily missed, and the possibility of their existence should always be considered in

examining a child who has difficulty in reading and whose refractive error is not sufficient to account for his troubles.

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NERVOUS DISORDERS IN GENERAL PRACTICE.

BY

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THERE is no question that the common nervous disorders make up a large fraction of our daily work. At a conservative estimate 25 per cent. of the patients encountered in general practice, in my experience, are suffering from functional disorders. No doubt a really psychologically-minded physician would double my figures, but for practical purposes I may say that one in every four patients coming to me for advice requires a longer or shorter explanation and elucidation of his personal problems rather than a prescription for a bottle of medicine.

It is a curious sidelight on modern civilization that so large a fraction of the community should exhibit these emotional difficulties ; for the symptoms of the functional nervous disorders are the physical expression of emotional conflicts, and these centre round the demands for love, protection and power.[1]

The first problem is to recognize the functional nervous disorder when it presents itself for diagnosis in the consulting-room. This can sometimes be extremely easy and sometimes extraordinarily difficult. In my experience, when the diagnosis is easy the treatment is often very difficult ; on the other hand,

when the diagnosis has taken an hour there is often no treatment necessary, as the patient is cured.

Another paradox: when the patient attributes his illness to some disorder of one of his organs I at once ask myself: "Can this patient be suffering from a functional nervous disorder?" Whereas if she humbly apologizes: "It is only my nerves, doctor," I am more inclined to keep my eyes open for a masked hyperthyroidism, a latent hypoglycæmia, or a toxæmia from a hidden septic focus.

Always I distrust the patient's diagnosis, for to the patient suffering from a functional disorder nothing is less acceptable than "nerves." "I am not that sort of person, doctor." Often enough, in fact much too often, the patient will support his opinion by saying that Dr. X. has told him that his heart is "weak" or "flabby," or she suffers from "colitis," and to that blessed label of organic disease the patient clings like the drowning man to his proverbial straw.

But it must be remembered that the patient is unaware of the true cause for this visceral expression of emotion or "organ-jargon," as Dr. Crookshank has called it.[2] The organs of the body are a keyboard on which the emotions of the sufferer play, sometimes a single note, sometimes an insistent chord, and sometimes just jazz.

We cannot say why the lachrymal glands should secrete tears when we feel sad, but we do not dignify the process of weeping by calling it an acute dacryoadenitis or recommend extirpation of the lachrymal glands as a cure for depression. But not every organ in the body enjoys this immunity. What of the colon that expresses its owner's fear? It has been labelled "Colitis," purged, lavaged, short-circuited or even resected. What of the uterus that

expresses unsatisfied desire with a menorrhagia; "endometritis" and the insult of the curette; or, worse still, "fibrosis" and a hysterectomy? What of the kidney whose vagrancy indicates its owner's inability to cope with hopeless environment? "Ptosis," we cry, and away with it for a nephropexy. After all, if the worst comes to the worst, the patient can spare a kidney, can exist without a uterus, can even carry on without a colon; but when the emotions find outlet in organs that are indispensable our surgical zeal must relent, and the doctor must lengthen his face, shake his head and regret that there is "nothing organic."

D.A.H., or disordered action of the heart, was an example of a masterly compromise; nothing organic, but the patient was palpitating with fear. But what about D.A.L., or disordered action of the lungs—the psychogenic asthma? Or D.A.B., disordered action the bladder—enuresis? Or D.A.E., disordered action of the eyes—otherwise miner's nystagmus? Or another D.A.L., disordered action of the labyrinth—dignified by the eponym, Ménière's syndrome? All these disorders are frequently associated with emotional disturbances, and may have no organic basis.

And so on listening to the patient's tale of woe I always ask myself: "Can these be the expressions of some emotion of which he is unaware?" These patients are not malingerers; they are unconscious of any relation between their symptoms and the emotional conflicts which may be going on in their minds.

Investigation of these nervous disorders must proceed on the time-honoured lines of the detective novel; we must first of all search for motives, and then proceed to establish relations of time according to the best precedents.

We may take for granted that the patient confronted with a "spot" diagnosis of motive, however accurate, will deny it stoutly. It is useless to impose the correct answer on the patient: it will be resisted. Cure depends on his working out his own solution, he must *feel* that it is correct, and so we must lead him gently up the garden-path.

Here are some of the stock solutions Not every case will fall into the categories I am going to describe, but a large number will be found under the following invoice. I am going to leave out of consideration the infant and the child, as they would require a lecture to themselves, and I will deal first of all with the adolescent.

Taking then the female of the species. The young girl confronted suddenly with developing contours and the onset of menstruation dimly apprehends the underlying problem of sex, and, if unprepared, is sometimes apt to evade the issue by embarking on a strict diet in the vain hope of arresting the progress of nature. And we then meet the patient so well illustrated by Professor Langdon Brown[3] as suffering from anorexia nervosa, the label for the involuntary hunger strike.

But puberty is not the only time that anorexia nervosa is prevalent. It is not uncommon in women of maturer years, and in practically every case inquiry will establish that the sufferer is faced with an apparently inexorable fate from which she has little hope of escape and no avenue for expressing her despair. Her emotions select this unconscious hunger strike as an avenue of expression.

To return, however, to the problems of adolescence. If the male has no reason to be concerned about the alterations in his bodily configuration, yet there are

disturbing changes in his physiology which can prove most upsetting. I refer, of course, to the problem of masturbation. The normal adolescent goes through this phase without much bother or self-reproach, but a number of youths develop an anxiety state about this matter. They can sometimes be recognized by their preoccupation with physical culture. They go in for strenuous athletics, not because they enjoy them, but "to work off their energy." Sometimes they consult the family doctor about the best method of physical training, and go in for Sandow's or My System. They make all kinds of fanciful alterations in their diet to avoid stimulation, and follow an ascetic régime of cold baths and long walks, but all to no purpose. The occasions for remorse and self-reproach still recur. Many of these cases are best tackled frankly on the subject. Most of them live in constant dread of remote but certain consequences of spinal degeneration, of insanity, of loss of virility. A short talk, refuting the bogy tales of the schoolmasters and clergymen, clears up many of their anxieties, and for many this is sufficient, but in others further treatment is required. Masturbation in many of these cases is no more than an urge to bring a little excitement into an otherwise drab and colourless existence; most of the patients are clerks chained to an office desk, not earning enough salary to be entirely independent of the paternal roof or to afford the pleasures of female society, and subject to the restrictions of a strictly regulated, often Nonconformist household. Culpin[4] goes so far as to say that the treatment of masturbation resolves itself into the treatment of the emotions of adults in regard to it. It has been pointed out that masturbation is the eroticism of the lonely, unhappy, solitary, fearful,

the selfishly self-centred, the diffident and the distrustful.[5] It is a symptom, not a disease, a symptom of cowardice about life in general and sexual life in particular. It is useless to reproach the victim for his lack of self-control—he has already done that himself *ad nauseam.*

The next fence in the Grand National, so to speak, is that of approaching marriage. Here again a great many riders clear the obstacle in their stride, but a certain number display a tendency either to refuse the jump or make a bad landing.

The modern woman has more grounds for indecision than her grandmother. Released from the necessity of living at home, in many cases financially independent and better educated, she needs more assurance that the advantages of marriage outweigh the relative disadvantages of loss of independence and varied domestic responsibilities. Moreover, the modern woman is already disillusioned in advance about the physical side of marriage, and the tendency nowadays appears to be to expect the worst rather than to hope for the best. Here comes the main difficulty about the preparation for marriage movement, for at present it deals in a scientific objective manner with the facts but omits the description of the emotional tensions involved. Havelock Ellis[6] points out that the mere knowledge of the facts is not enough. This I can endorse, as I well remember the case of a young woman who had been most carefully instructed by an up-to-date mother with regards to the "facts of life," but when first faced with the realities of the emotional situation was so emotionally unprepared that she broke down completely and became so dissociated that she had the feeling that "her body did not exist."

Amongst the functional disorders that I have recognized in young women engaged to be married have been a functional leucorrhœa, a lingual neuralgia, a cardiospasm, a "colitis," anorexia with cough, and to these I would add a rheumatoid arthritis that improved when the girl's fiancé, who was a rotter, broke off the engagement. Prospect of marriage seems less formidable to the male. I have notes of one case of severe and frequent migraine which, in the light of subsequent events, appeared to have been due to worry over premarital intercourse. Another man suffered from migraine associated with fears of insanity and various fatal illnesses. He really couldn't afford to marry, but had rashly fixed up the date.

The next fence, and a stiffer one, is married life itself. Here a good many riders crash who have taken the other obstacles like a bird, while those who have already put a foot wrong very often come to grief badly.

Adler has defined marriage as a "constructive task for two persons who are determined to live together in order to relieve and enrich each other's lives."[7] But Wexberg states that "of marriage, as comradeship, the neurotic has no comprehension."[8] If one partner cannot live up to this standard of sexual and social co-operation, he or she must safeguard himself or herself by a "series of evasions, arrangements, compromises, hesitations, fraudulent devices, bogus insurances and confidence tricks which they put across themselves."[9] And so again we have the flight into illness.

Usually this flight into illness does not come on gradually, but develops after some genuine occasion. An operation for a real appendicitis, the birth of a child, a pneumonia, provides a useful peg. Convalescence is prolonged, and the woman states that

"she has never been the same since her operation or her baby." A state of chronic invalidism develops which resists all tonics, recurs after every change of air, and is the despair of the family doctor.

The blame which the patient refers to the appendicitis or the "shock" of labour is really a displacement of affect. The woman is really blaming the circumstances of married life. She may really be resenting clumsy technique or cooling of passion of her partner. She may feel insecure if her husband devotes himself to his business or spends the week-ends away from home. More often the conflict is deeper and more unformulated. It is based on the conflict between the will to power which appears in every human relationship and the submission and dependence which are the biological requirements of sexual life in women.[10] She may have plenty of reasons, good, bad and indifferent, but the point at issue is that she is failing to face the situation, is thrusting it at the back of her mind, and solving the burning question in a useless, painful and expensive manner. And why do I specify women? Because the man has more opportunities of blowing off steam. If things have gone badly he can take it out of the typist or the chauffeur or the office-boy or knock a ball round the golf course. But the woman, tied to a house, at close quarters with howling infants and incompetent maids, dare not let herself go.

The next fence proves a regular Becher's Brook to most of the compulsory competitors. The casualties are very numerous. The menopause marks a definite stage in the life history of the patient, and it is inevitable that a certain amount of stock-taking, conscious or unconscious, takes place at this period. Many of the symptoms of the climacteric

are really evidence of a considerable emotional conflict which may be going on below the level of consciousness. A review of the past may bring regrets for missed opportunities, serious errors of judgment, loss of objectives; and a forecast into the future may bring to light fears of loss of health, of security and of earning capacity.

Many patients report at this time strange pains about the heart, the abdomen and the pelvis which cannot be explained on anatomical grounds. In nearly every case these patients have an underlying fear of dropping down dead, of gastric ulcer or cancer of the uterus. A thorough examination and a *specific* assurance that there is no evidence of disease in the organ complained of generally cures these pains. But some of these patients, when reassured about the organ, return next week with pain in a new site. Here fear is being projected on to an organ of the body. Really the fear of organic disease is a rationalization of the conscious mind. Underlying this is an unformulated fear of the future, of poverty, of neglect, of failing charms, of a future meaningless without objectives. These are generally women who have devoted themselves to their homes, their children, their husbands; never having allowed themselves leisure to cultivate any interest outside their homes, they now see their children growing up and about to leave them, their husbands absorbed in business interests, and the future a blank.

Another rather common situation is that of the unmarried daughter who has stayed at home to look after her parents. On the death of her parents, often, in the nature of things, about the time of her climacteric, her little world comes tumbling about her ears.

The evidence for a climacteric in the male has been much disputed, but I do support Kenneth Walker's contention that it occurs.[11] With a certain type of man, the failure of sexual powers is a great blow to their self-esteem, and I have had half a dozen patients who have suffered from various nervous symptoms which ultimately appeared to have been based on this experience. One of them expressed himself: "I feel I must have gone through what women call the change of life." I believe it may be a factor in the nervous invalidism that sometimes follows prostatectomies in younger men. A suddenly enforced abstinence at this time may also provoke symptoms.

And so we come to the last and final obstacle, the problem of old age and a dignified senescence. The woman generally makes a better show of it than the man. It was not for nothing that Miss Sackville-West chose a heroine, not a hero, for her study of old age, *All Passion Spent*. If the woman has survived the obstacles of adolescence, menstruation, marriage, pregnancies and the menopause, old age will present few difficulties.

The two fears associated with old age are loss of security from a failure of earning capacity and the fear of dying. This latter is more a terror of the physical process of dying than a fear of death in the abstract.

For the man old age has its own problems. Chief of these is the difficulty of adjusting to a life of leisure. Voluntary retirement or compulsory pensioning often proves disappointing. For many years the old man has looked forward to the time when he can enjoy his leisure, but in so many cases when the opportunity arrives he is unprepared to make use of it.

Many men of sixty-five to seventy suffer from

functional nervous disorders for the first time in their lives. The illness is often precipitated by the news of the death of a relative or old friend. Headaches and giddiness are interpreted as the onset of a stroke, loss of memory as softening of the brain, palpitation as heart disease, spots in front of the eyes as cataract. But behind these fears of disease lurks the fear for the future, of dying itself.

The average man, when he thinks of dying, visualizes some dramatic death-struggle seen on the stage or screen, or some harrowing exitus described in some novel. For it must be remembered that the average civilian rarely sees a death. I have been surprised sometimes when elderly relatives have told me that this was the first death-bed they had witnessed. Such people in their ignorance often invest the final passage in their imaginations with fearful physical agony.

Of course, in truth, death in the sixth and seventh decades steals gently on his victims. There is a merciful clouding of consciousness, and the majority of elderly patients that I have watched over the border have been in a coma for many hours. Curiously enough, it is the religious man who is often most appalled at the idea of dying; perhaps the cynic would say that his religion was in the nature of an insurance. I have never seen the so-called *spes phthisica* in an elderly patient, though it is the common reaction of the younger patient, not only in tuberculosis but in other diseases.[12] The *spes phthisica* has no particular relation to tuberculosis. It is merely a stock evasion of the approach of death by a person who refuses to accept the situation.

You will realize that, with Miss Rose Macaulay, I have come to the conclusion that every age has its

potentialities as a "dangerous age." In dealing with all these patients we must remember what a former Long Fox lecturer has told us: "It is not an illness we treat, but an individual who is ill."[13] Our object must be first to recognize the nature of their disorder, then, by establishing good relations with our patient, to win his confidence. With encouragement and persuasion that confidence can be enlarged and transferred to the difficult situation he is refusing to face.

A recent writer[14] has pointed out that much of a family doctor's work is a "specialized kind of friendship." Goodwill, informed by science and tempered by judgment, must be the therapeutic agent in the hands of the general practitioner who deals with the neurotic.

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Reviews of Books

The Physician as Man of Letters, Science and Action. By T. K. Monro, M.D. Pp. viii., 212. Illustrated. Glasgow: Jackson, Wylie & Co. 1933. Price 10s. 6d.—This is a most interesting little volume, and, indeed, it forms an important contribution to medical history. It consists of biographical notes on the lives and achievements of some four hundred and fifty medical men who distinguished themselves in matters outside professional work. In other words, the author has given us a wonderful gallery of portraits of the poets, authors, soldiers and politicians, of the artists, men of science and philanthropists who have arisen in our ranks. It has taken many years to collect these sketches, but quite recent discoveries and controversies are summarized and inserted. From Bristol and the neighbourhood he draws about a score of names, including Symonds, Thomas Young, the two Beddoes, John Locke and Dover, but we miss J. Cowles Prichard and J. Beddoe as anthropologists, and J. Free the humanist. On the other hand, few Bristolians are alive to the literary claims of Drs. T. Marryat, Jos. Nott, Harington, W. Charleton, and Mortimer Granville, or even know that, besides Smollett, our Bishop Seeker and the pirate Scudamore were qualified medical men, as our author points out. He provides two indices, one of the names of the men and the other of their discoveries or the subjects they worked at. Among many curious entries we may note: "Anæsthesia," the name given to a poor girl whose mother was the first to be delivered under chloroform, and "Vaccinoff," the first Russian child to be vaccinated.

Lettsom. By J. J. Abraham. Pp. xx., 498. Illustrated. London: William Heinemann Ltd. 1933. Price 30s.—This is a marvellous picture of the medical world of London in the eighteenth century drawn with great accuracy in every detail like a Dutch painting. Everyone of note plays his part on this stage, for Lettsom knew everyone. Sometimes a fresh actor comes on, and we are told so much about his history and surroundings that Lettsom is forgotten, and one has

quite a shock when he re-appears and joins in the fighting, for there always is fighting going on or some reform to be carried out. J. C. Lettsom was born in the West Indies, November, 1744, of Quaker parents. His mother, by the way, had fourteen male children in seven pregnancies, John being one of the last pair. That he was born a Quaker and remained one in spite of their disabilities moulded his whole life. It gave him some powerful friends, such as Fothergill, Franklin and Benjamin Rush; it kept him out of the struggle for honours and offices at Court and from the wild living of the time. Instead of this he concentrated his boundless energies partly on his work, so that he made the largest medical income of that age, and partly on philanthropic movements, prison reform, the Royal Humane Society, the new dispensaries, seaside sanatoria, inoculation and then vaccination, as well as on founding and building up the Medical Society of London, which still survives. The story of each of these movements is given here, supported by many notes and documents of great value. The artistic skill of the writer is well shown in his charming account of the historic dinner where Samuel Johnson, Wilkes and, it seems, Lettsom spent a pleasant hour together by Boswell's scheming. We are told here, too, why the Dillys gave the dinner which, perhaps, Boswell did not know. Again, he gives a terrible picture of the death of old Dr. Fothergill suffering fourteen days' torture from a distended bladder because "no one had the courage to do a suprapubic puncture," and Percival Pott himself could not get in a metal catheter. The book is sumptuously got up, and has one hundred and forty choice illustrations. The only complaint to be made is as to the weight of the volume.

Inherited Abnormalities of the Skin. By E. A. COCKAYNE, D.M., F.R.C.P. Pp. x., 394. Illustrated. London: Oxford University Press. 1933. Price 32s.—This book will appeal alike to geneticists and dermatologists, and the author expresses the hope that it may succeed in stiumlating those who deal with affections of the skin to obtain more complete family histories than has hitherto been their custom, and with this object in view he has taken abnormalities of the skin as being superficial and therefore unlikely to be overlooked. The first fifty pages are devoted to the introduction, and contain a clear description of the various types of heredity resulting from different combinations of genes, with simple diagrams to illustrate the Mendelian rules controlling the occurrence of

particular characteristics; but the mechanism of Mendelian inheritance is not given in detail, because the reader is expected to be familiar with this part of the subject. The sections dealing with mutations, atavism and stigmata of degeneration will be helpful to workers engaged in the collection and analysis of data, and they warn us of the loose way in which these terms are sometimes used in medical literature; a common example of this is the application of atavism to conditions which are really the result of arrested development, whereas the term should be limited to such conditions as were at one time normal characters of adult man. In the essential part of the work the author has dealt with a great diversity of skin affections, and has taken them in order according to their nature or to the histological structure which they involve; he has analysed a large number of family histories, and has shown very clearly the importance of complete sibships being furnished for determining the kind of heredity in each instance, and he naturally deplores the frequent omission of records of blood relationships so essential in the case of recessives. He hints that with more complete records it might be possible to classify definitely the variants of such diseases as ichthyosis. The references are numerous, giving us an idea of the work involved in compiling this volume and adding to its value as an aid to research. The author has earned a debt of gratitude from the profession for this valuable addition to medical literature, and the publishers are to be congratulated upon the style in which the book has been produced.

The Enlarged Prostate and Prostatic Obstruction. Second Edition. By KENNETH M. WALKER, M.B., B.C. Pp. xiii., 223. Illustrated. London: Oxford University Press. 1933. Price 14s.—This book will appeal both to the general practitioner and the surgeon. To the former, in that it gives a lucid and comprehensive description, in all its aspects, of the enlarged prostate and the train of signs and symptoms it produces, culminating in obstruction. Those with which the practitioner is brought in contact are dealt with excellently and the line of action well defined, though perhaps more detail might have been given, particularly for their benefit, in those early cases of enlargement of the prostate which, by suitable treatment, need never arrive at the stage in which operation is indicated. Two most important points to be observed by the man doing general work are wisely emphasized: the danger in the man

of blameless life of emptying the bladder, distended as the result of prostatic obstruction, and the vast importance of tracing to its source any urinary hæmorrhage, often associated with the enlarged prostate, without delay, and while the hæmorrhage still exists. Here, also, for the surgeon without much experience in the difficulties and dangers of prostatectomy, will be found an admirable résumé of a wide experience in the handling of these cases, which is among the most difficult of all surgical procedures. Emphasis is laid upon the importance of the preliminary and after-treatment in comparison with which the technique of the operation is but the lesser part. The subject-matter is well up to date, even to a reasoned criticism of the perurethral methods of treatment. The references are adequate, and while some of the illustrations are somewhat crude they are sufficient in their indications.

Maternal Mortality and Morbidity. By J. M. MUNRO KERR, M.D. Pp. xviii., 382. Illustrated. Edinburgh: E. & S. Livingstone. 1933. Price 25s.—Dr. Munro Kerr in this book is dealing with a problem about which, as he says, much has been written by different sections of the medical profession. He has approached it along broader lines than is usual, and shows clearly that it is only in this way that any solution to the problem is likely to be found. In addition to this method of approach he deals with the problem in its widest aspect, that is, he includes maternal morbidity, still-births and neo-natal deaths and disability. He has put together a number of facts which are not only useful and interesting, but which should provoke both thought and discussion. Statistics are given clearly in a number of tables and charts, though these are of rather more interest and value to Scotch than to English readers, because many of them are compiled from Scotch figures. The book has brought out the importance of the co-ordination of every service and every agency which has any bearing on the problem of maternal mortality. A drawback to the book is the somewhat unsatisfactory arrangement of the contents of each chapter. The material should be very useful to those who are considering any one section of maternity work and to those who are interested in dealing with these questions as a whole, but it is necessary to go through a great deal of detail before it is possible to appreciate the purport of the chapters. Its value, therefore, as a reference book is not quite as great as it might have been.

A Short History of Some Common Diseases. Edited by W. R. BETT. Pp. x., 211. London: Oxford University Press. 1934. Price 10s. 6d.—This is a brilliant collection of papers which describe how our knowledge of each of these diseases grew up. Thus it is not a history of epidemics or of the gradual spread of any disorder, but the story of the gradual building up of the picture of each disease by the discoveries of successive ages. Sir John Fraser in this way traces our idea of tuberculosis from Egyptian and Greek times down to Koch's demonstration of the tubercle bacillus in March, 1882, and onwards. By the way, he fails to mention Bennett of Wrington's early work on the pathology. Sir D'Arcy Power, in all too brief a paper, describes the evolution of our knowledge of syphilis from 1493 down to the discovery of the spirochæte in 1905. Another short article, but of great interest, has to do with the work of Blackall, and still more with that of Richard Bright, on the subject of nephritis. One is impressed throughout the whole volume with the vast amount of historical learning enshrined in these papers, notably in those on the endocrine disorders and epilepsy, where materials for history exist.

Constitution and Health. By R. PEARL. Pp. 97. Illustrated. London: Kegan Paul, Trench, Trubner & Co. Ltd. 1933. Price 2s. 6d.—Dr. Raymond Pearl, Professor of Biology in the Johns Hopkins University, has in this short monograph attempted to estimate the importance of the innate constitution of the individual as a causal factor in determining his state of health. Although his language and methods are those of the modern biologist rather than those of the physician, the problem is one of great interest to the medical profession. Dr. Pearl makes no claim to have solved the problem of the correlation between constitution and health, but pleads for the patient accumulation of data, which alone can put the study of constitutional medicine on a scientific basis.

Bone Growth in Health and Disease. By H. A. HARRIS, D.Sc., M.B. Pp. xv., 248. Illustrated. London: Oxford University Press. 1933. Price 34s.—Anyone who reads this unique and lucid volume reaps a rich reward. Therein is the mystery of the building of bone made clear, and such tedious processes as the preparatory calcification of cartilage and permanent ossification made an attractive story. The writing is mainly in a thoughtful, scientific vein, though not obscure,

and often interspersed with allusions, clinical, historical or zoological. Much of the earlier treatise centres round the author's observations of transverse markings in radiograms of certain young tibiæ. These, he shows, are legacies of spells of arrested growth during early life. By the changing position of these dense lines in repeated radiograms over long periods the opinion formed by earlier experimenters is confirmed, namely that length is added to bones not by interstitial increase, but by growth at the epiphyseal line. In later chapters he demonstrates clearly how the vulnerable site of bone deposition is affected by forces of disorder and disease. He spares no trouble to clarify the various characteristic reactions of bone to different endocrine, metabolic, toxic and infective influences, and shows them to be all modifications of one simple system, the "annulus of mitosis." The diagram illustrating this on page 146 may be regarded as the key picture to the author's conception of the subject. Antenatal and senescent aspects are included in the consideration of the growth of bone and its forerunner, cartilage. In style, biological range, restraint and regard for truth this work is worthy of the classics of English medicine. The illustrations and print are of the fine order appropriate for such masterly matter, which should form the foundation of his study for every postgraduate student of bone surgery.

This Panel Business. By G. P. Pp. xii., 364. London: John Bale, Sons & Danielsson Ltd. 1933. Price 10s. 6d.—This book gives a good general survey of panel practice both in this country and abroad. It enters fully into its future. The author criticizes fearlessly approved societies, insurance committees, lay newspapers, the Ministry of Health, panel committees, the Insurance Acts Committee, and doctors themselves. He points out serious difficulties in the way of public medical services. He makes out a very good case for the restoration of the cuts in the pay of panel practitioners, as this does, in fact, include his professional expenses as well as his profits. He ends with valuable suggestions for the future of panel practice; these should be very carefully studied by all panel doctors. They will find much helpful information in this volume. The book is well written and readable. There are one or two minor inaccuracies which do not affect its value, *e.g.* the author comments on the lack of lectures to students on insurance matters: such lectures are given.

Recent Progress in Medicine and Surgery. Edited by SIR JOHN COLLIE, C.M.G., M.D. Pp. xii., 368. Illustrated. London: H. K. Lewis & Co. Ltd. 1933. Price 16s.—There have been many books published in the past two or three years dealing with recent advances in some particular branch of medicine or surgery, but Sir John Collie's volume is unique in that it aims to cover the additions to the whole field of medicine and surgery in the period from the end of the war to the present time. Twenty-one different authors contribute, and the articles are almost uniformly of the greatest practical value, full of information and eminently readable. This is a book to which the busy practitioner will make frequent reference, for the question of recent progress in treatment has been put in the foreground throughout. Another very important function fulfilled by this work is that it clearly and definitely defines the position of medical knowledge at the present time in many controversial matters. In this connection we may mention the contributions on endocrinology, neurology, bacteriology, radiology and vitamins. The author of each has largely eliminated all that is conjectural and problematical, and has brought into prominence the established facts which are of practical value in regard to both diagnosis and treatment.

Rheumatism in General Practice. By M. B. RAY, M.D. Pp. x., 404. Illustrated. London: H. K. Lewis & Co. Ltd. 1934. Price 16s.—Lord Horder, in his foreword, calls this book "the best account of rheumatism in our language." Not having read all the books written on the subject, we cannot confirm his rather sweeping statement! Nevertheless, it is an excellent book, and as useful to the specialist as to the general practitioner, for whom, according to the title, it is intended. Its scope is rightly large, "rheumatism" covering a multitude of diseases, but the classification and diagnosis of the various types is usually sound. The old conceptions of the ætiology of rheumatic diseases is greatly modified and put on a firmer and more practical basis. Physiotherapy is not as neglected as usual, though it is apt to be relegated to the might-be-trieds; after all, the practitioner *knows* what "may be tried," the important thing to appreciate is what is likely to cure his patient. It is surprising to find repeated the old erroneous idea that "heat is driven in" (when it is actually generated) by diathermy. Perhaps the most useful sections in the book are the anatomical notes, which, though somewhat

crowded, are splendid refreshers to one's overburdened memory. The whole book would have been improved by more illustrations, for apart from some half-dozen X-ray plates of hands (excellent as far as they go) there are only a couple of diagrams. The printing on the whole is good, and the heavy-typed headings are excellent for reference. The index is nothing like adequate, and the binding is not too good for the weight of the book, to which a thirty-two page catalogue adds bulk but not elegance.

Heart Disease. By CRIGHTON BRAMWELL, M.D. Pp. vii., 244. Illustrated. London: Edward Arnold & Co. 1932. Price 12s. 6d.—This is an excellent little book both for the student and the practitioner. Within the compass of a little more than two hundred pages the author portrays in a clear and lucid manner what might be termed the essentials of heart disease. Diagrams and radiograms are inserted where required, while electrocardiograms are clearly described throughout. The term valvular lesion is preferred to valvular disease, but in his endeavour to impress upon the student the modern conception of the all-important state of the myocardium, the author dismisses valvular lesions without making clear the difference between hæmic and organic murmurs. Again, a little less sketchiness in describing congenital heart disease would prove to be of great value in a work which is written primarily for the student. The chapters on angina pectoris and coronary occlusion are perhaps outstanding as concise and masterly descriptions of these conditions. With the few exceptions above mentioned, the pages of this book are vibrant with the voice of one who speaks clearly and authoritatively.

Therapeutic Uses of Infra-Red Rays. Second edition. By W. A. TROUP, M.C., M.B. Pp. xiv., 92. Illustrated. London: The Actinic Press. 1933. Price 6s. 6d.—The first edition has been revised and the physical side brought up to date. The book should appeal to general practitioners, who will find the technique and apparatus required for the treatment by the infra-red rays simply and clearly described. These are most useful for the relief of pain and cure of many of the common painful ailments which one meets in general practice, especially in those conditions where the absorption of infiltrations and exudations are required. The latter part of the book is devoted to the clinical conditions in which

Dr. Troup has found infra-red radiation of value, and is a guide to practitioners who desire to add this method of treatment to their therapeutics. The book ends with an interesting appendix on photography by infra-red radiation.

Clinical Contraception. By GLADYS M. COX, M.B., B.S. Pp. ix., 173. Illustrated. London: William Heinemann Ltd. 1933. Price 7s. 6d.—This is a most comprehensive book, dealing in detail with the clinical methods of contraception. The pros and cons of each method are clearly indicated and the choice of method, suitable to various types of patient, given. The various contraceptive appliances are described and illustrated, and their correct situation in the genital tract is shown by diagrams. The whole is well written and is an up-to-date summary of our present knowledge of the subject and can be especially recommended as a practical treatise for the general practitioner, the gynæcologist and those in charge of birth control clinics.

The Hygiene of Marriage. Fourth edition. By ISABEL E. HUTTON, M.D. Pp. x., 146. Illustrated. London: William Heinemann Ltd. 1933. Price 5s.—This, the fourth edition of the book, maintains the high standard of previous editions. It has been amplified and the chapters on birth control and contraceptives brought up to date. The added chapter on "Childlessness" is to be welcomed, because, as the author states, this condition can often be remedied as the result of medical advice. The book can be recommended to those who are about to be married as a wholesome one, and will be useful to those practitioners whose advice on this subject may be sought.

Sex Efficiency Through Exercise. By TH. H. VAN DE VELDE, M.D. Pp. xvii., 163. Illustrated. London: William Heinemann Ltd. 1933. Price 25s.—It is interesting that "Good Taste" is a phrase far more frequently applied in a social or æsthetic signification than to the actual physical titillation of the palate. This book bears a striking resemblance to the curate's egg. The parts which are excellent are devoted to detailed descriptions of exercises for women, mainly for use during pregnancy and the puerperium. Their value is enhanced by a well-chosen series of ingenious "flicker" pictures, which by a kinematograph effect show clearly just how each exercise should be performed. In the

remaining smaller portion is described how exercises of the abdominal and pelvic muscles can be applied to increase physical satisfaction in coitus. Certain oriental races, we believe, attach much importance to this subject—and actually prefer their eggs rotten. We feel that it is not mere insular prejudice that leads us to emulate the curate's reticence.

An Outline of Practical Obstetrics for Nurses. By R. S. S. STATHAM, M.D., Ch.M. Pp. 139. Bristol: John Wright & Sons Ltd. 1933. Price 2s. 6d.—The family of midwifery booklets is large, but this youngest addition is welcome. For though the family likeness is undeniable, there is that "something different" which makes it attractive. The attraction is not based on its illustrations, for it has none. The preface supplies the clue. The little book is the achievement of a clear-cut objective. It covers the syllabus for the Central Midwives Board Examination, and whilst admittedly designed to facilitate revisional preparation for that examination with its steadily rising pass-standard, it rigorously avoids cram lists throughout. The comparative table of mechanisms on the large end fly-leaf is well drawn for easy reference. The author may be well assured that while, as he surmises in the preface, it certainly will "while away some of the long hours of waiting on the District," the book, with its clear captions and fifteen pages of well-typed index, also lends itself to ready reference in stressful times. The contents of the sixteen chapters are best adapted to the study of those having knowledge and experience, such as nurses possess, and the subjects of dominant importance, such as ante-natal care, puerperal infections, hæmorrhage and infant-feeding are adequately and very helpfully dealt with. The booklet is a mine of well-arranged information within, and in form and size a handy vade-mecum.

Chronic Nasal Sinusitis and its Relation to General Medicine. Second edition. By P. WATSON-WILLIAMS. Pp. xx., 262. Illustrated. Bristol: John Wright & Sons Ltd. 1933. Price 15s.—Specialism, the necessary outcome of the vast expansion of the science and practice of the healing art, and moreover now a powerful agent in the progressive advance of medicine, had to suffer the displeasure of the orthodox leaders of the profession during a considerable part of the last century. Many now living can remember when its existence was little more than tolerated by those

in the seats of the mighty, and that to be on the staff of a special hospital was not a recommendation for election on to that of the great teaching hospitals in London. It was said that specialism tended to a narrow outlook, and by focusing attention on the trees obscured the view of the wood. This may have had some truth, and that some enthusiasts were not exempt from the human liability to error is hardly surprising. However this may have been, the position of legitimate specialism has long been established, and no better example of its value need be quoted than this work of Dr. Patrick Watson-Williams, which three years after its appearance has now passed into a deserved second edition. This generously-illustrated volume appeals widely to medical men for its account of systemic infection, as well as to specialists, who will find much to interest them in the five chapters devoted to the detailed consideration of the diagnostic methods and treatment of sinusitis. The conception of focal sepsis, which William Hunter has set out in many contributions since 1889, followed by the late Frank Billings of Chicago, is traced back by the author to a much earlier date; for example, the astrologist and quack Nicholas Culpeper and the Swiss physician J. J. Wepfer in the seventeenth century had some such inkling. The nasal sinuses are specially suitable for the study of focal sepsis, for they are normally sterile, and are readily accessible to bacteriological investigation, and thus any infection can be determined. It is pointed out that although the primary sites of focal infection vary, the distribution of systemic toxæmia and hæmic secondary infections does not depend on any special source of origin; on the other hand, there are some obvious differences in the local spread of infection determined by anatomical connections. A specially interesting chapter deals with secondary infections of the orbit and eye, a subject the author began to elucidate in 1892. A new feature in this edition is the discussion of some problems in chronic sepsis, such as the nature of agranulo-cytosis, mixed infections, leontiasis, and other obscure diseases of bone. Each chapter has a bibliography, and the volume is piously dedicated to the Bristol Medical School in the year of its centenary as a tribute from one of her sons.

H. D. ROLLESTON.

Editorial Notes

Index to Volumes 1–50.

At last the Index to our first fifty volumes is complete. It is the product of the joint labours of the Assistant Editor (Mr. E. Watson-Williams) and the Senior Assistant in the University Library (Mr. A. E. S. Roberts). The value of such an index is great, although the number of users may be small. From time to time some research worker has occasion to refer to the work of his forerunners, and a comprehensive index is then indispensable.

A journal such as ours contains references to current events which as time passes become of increasing importance to historians. When contemporary records have to be searched through the boon of a good index cannot be over-estimated. This fifty-volume index is long and has proved a costly undertaking, but our subscribers will not grudge the cost, even as the compilers have not grudged their labour. "Time is of more value than type and the wear and tear of temper than an extra page of index."

* * * * *

Winford Orthopædic Hospital.

The Winford Orthopædic Hospital has sustained a great loss owing to the resignation of its Chairman, Miss F. M. Townsend, M.A., J.P. For many years Miss Townsend has been prominent in this city in all educational work, and in particular has been closely associated with the welfare and education of the mentally and physically defective.

She founded the Knowle Open Air School, the first of its kind in the city, and at first a voluntary organization, though later taken over by the Education Committee. She has also been chairman of the committee dealing with Special Schools.

Miss Townsend was the prime mover in the foundation of the Crippled Children's Aid Society, and when it was decided to move the Orthopædic Hospital from Grove Road into the country it was chiefly owing to her energy and organizing ability that the Winford Orthopædic Hospital came into existence. That this was recognized by all was shown by the unanimity with which she was elected its first chairman.

It must be a matter of profound regret to everyone that ill-health should have compelled her to vacate a post which she had so ably filled.

Her place is being taken by Sir Lionel Goodenough Taylor, who has long been intimately associated with the Grove Road Hospital and with its successor at Winford. Of the latter he has been Treasurer and has also acted as Chairman since Miss Townsend fell ill, so that no one could be better fitted to take on the work which Miss Townsend has been so unfortunately compelled to abandon.

Obituary

DR. CHARLES RANDOLPH,
OF MILVERTON, SOMERSET.

A VERY large circle of patients and friends will mourn the death of Dr. Charles Randolph, which occurred on 14th January, in his eighty-fourth year.

A native of Milverton, son of Dr. Henry W. Randolph,

he received his medical education at the Bristol Medical School and Royal Infirmary and at St. Bartholomew's, and after qualifying M.R.C.S.(Eng.) in 1871 and L.R.C.P.(Edin.) and L.M. in 1872 he joined his father and remained in active practice until his retirement in 1931. He always took the keenest interest in his profession. When under forty years of age he was elected President of the West Somerset Branch of the B.M.A., and for forty-five years he was Medical Officer of Health to the Wellington Rural Council, whereas for no less than fifty-five years he acted as Poor Law Officer.

Endowed with an almost superhuman capacity for work, Dr. Randolph was ever willing to expend his last ounce of energy in the interest of his patients, taking practically no recreation, with the exception of an occasional day's hunting; but in spite of the exacting nature of his large and widely-scattered practice he managed to keep himself well informed in all the practical branches of medicine, but he had little opportunity of attending medical meetings or of taking part in discussions, which is a regrettable loss to the profession, since he was an accurate observer and a man of vast experience.

For some years before his death Dr. Randolph suffered much pain from a progressive affection which completely crippled him. He bore his illness with wonderful patience and fortitude.

It is a proud reflection, not only for the Bristol Medical School, but for the whole profession, that one of its members should have left behind him so useful and so unselfish a record as that of Dr. Randolph, who proved himself to be a man of rare personality and one capable of conducting a large general practice for no less a period than sixty years with such ability and untiring devotion to duty that his career may well be regarded as exemplifying the highest traditions of the profession. In addition to his medical skill he had a capacity for taking a genuine personal interest in his patients, which must have accentuated, if possible, his innate desire to be of service. His whole life, in fact, illustrated the force of Browning's remark: "How can man love but what he yearns to help?"

He leaves a widow, two daughters and two sons, and a niece, with whom we deeply sympathize.

EDWARD JOHN CAVE, M.D., F.R.C.P. (LOND.).

BY the death of Dr. Cave, of Bath, which occurred on the 16th of February, the medical profession has lost an exceptionally brilliant physician and the Medico-Chirurgical Society a revered member of thirty-six years' standing, in the seventy-fourth year of his life. As a student at St. Bartholomew's Hospital he had a distinguished career, taking the double qualification in 1883. Two years later he graduated as M.B. (Lond.) with gold medal, and in 1886 he took the degree of M.D. (Lond.), qualifying for gold medal. He came to Bath as House Physician to the Royal United Hospital, and after serving in a similar capacity at Newcastle-on-Tyne and at Leeds he went into practice at Crewkerne, in Somerset, until 1898, when he returned to Bath as Assistant Physician to the Royal United Hospital. In 1899 he became full Physician and took his M.R.C.P., being elected to the Fellowship in 1912.

Dr. Cave's wide experience, professional knowledge and versatile wisdom made him one of the most popular consultants in the neighbourhood. He was a great student, and was seldom confronted with an abstruse case without being able to throw fresh light upon it. When President of the Bath and Bristol Branch of the British Medical Association, in 1907, he delivered as his inaugural address a dissertation upon the spa treatment of neurasthenia, which has proved to be a really valuable contribution to medical literature.

He was fond of shooting, golf and billiards, but his chief recreation was chess, of which he was an enthusiastic and skilful player, of county standing.

Dr. Cave died after an illness of four days' duration. He leaves one child, a married daughter.

Meetings of Societies

Bristol Medico-Chirurgical Society

THE fourth meeting of the Society was held in the Physiological Lecture Theatre of the University on Wednesday, 10th January, at 8.30 p.m.

Dr. Herbert Rogers showed and explained pathological specimens, including one from a case of ulcerative

endocarditis, and a short discussion followed, in which Mr. Wright, Dr. P. Watson-Williams and Dr. Perry joined, and Dr. Rogers replied.

The minutes of the preceding meeting were read and confirmed.

The President announced that the Dinner Committee had arranged that the annual dinner of the Society would be held at the Berkeley Café on Wednesday, 7th March.

Mr. E. Watson-Williams then read a paper on **"Catarrh,"** illustrating his paper with cases and the epidiascope. The President thanked and congratulated Mr. Watson-Williams, and in the discussion which followed Mr. Wright, Dr. P. Watson-Williams, Professor Nixon, Mr. Angell James, Dr. Herbert Rogers and Dr. Alexander took part, and Mr. E. Watson-Williams replied.

THE fifth meeting of the session was held in the Physiological Lecture Theatre of the University on Wednesday, 14th February, at 8.30 p.m., Dr. Elwin Harris (sen.) presiding, and 118 members and visitors being present.

Dr. G. B. Bush and Dr. A. L. Taylor showed skiagrams and pathological specimens respectively.

The minutes of the preceding meeting were read and confirmed.

The President then spoke of the death of Dr. W. P. Kennedy, and at his request the members stood in silence for a few moments.

Dr. A. L. Taylor, at the request of the President, described the pathological specimens which he had shown.

The President then introduced Sir Thomas Peel Dunhill, who gave an address on **"Toxic Goitre."**

The President thanked and congratulated Sir Thomas Dunhill, and questions were asked by Mr. Clifford Moore, Dr. H. H. Carleton, Professor Nixon, Mr. Walters, Dr. P. Watson-Williams, Dr. Frank Bodman, and Dr. Sutton, to which Sir Thomas Dunhill replied.

Professor Rendle Short proposed and Mr. C. A. Moore seconded a vote of thanks to Sir Thomas Dunhill for his address, and this was carried with acclamation.

The Medical Library of the University of Bristol,

WITH WHICH IS INCORPORATED

The Library of the Bristol Medico-Chirurgical Society.

The following donations have been received since the publication of the list in November, 1933.

March, 1934.

A. Wilfred Adams, Esq., M.S. (1)	1 volume.
Messrs. Edward Arnold (2)	1 ,,
Association of American Physicians (3) ..	1 ,,
Brompton Hospital (4)	1 ,,
Messrs. J. & A. Churchill (5)	1 ,,
J. Michell Clarke Fund (6)	33 volumes.
Mrs. Carey Coombs (7)	8 ,,
Madame Tuffier (8)	1 volume.
Glasgow Royal Maternity and Women's Hospital (9)	1 ,,
Professor E. W. Hey Groves (10)	1 ,,
Dr. M. Nierenstein (11)	1 ,,
Professor J. A. Nixon (12)	1 ,,
Dr. George Parker (13)	3 volumes.
George Munro Smith Fund (14)..	9 ,,
Smithsonian Institution (15)	2 ,,

Unbound periodicals have also been received from Professor E. W. Hey Groves, Dr. J. Odery Symes and Dr. C. Bruce Perry.

THE ONE HUNDRED AND FORTY-SIXTH LIST OF BOOKS.

The figures in round brackets refer to the figures after the names of the donors. The books to which no such figures are attached have either been bought from the Library Fund or received through the *Journal*.

Abraham, J. J. .. .. *Lettsom* 1933
Adler, A. .. .. .. *Problems of Neurosis* .. .. (6) 1929
Ahlswede, E. .. .. *Practical Treatment of Skin Diseases* (6) 1932
Arafa, M. A. .. .. *Modern Aspects of Gastro-Enterology* (6) 1933
Atkinson, E. M. .. .. *Intracranial Suppuration* .. .. .. (6) 1932
Atkinson, F. R. B. .. *Acromegaly* .. .. (14) 1932
Bankart, A. S. B. .. *Manipulative Surgery* .. .. (6) 1932
Barclay, A. E. .. .. *Digestive Tract* .. .. (6) 1933
Bainbridge, F. A., and Menzies, J. A. *Essentials of Physiology* 7th Ed. (6) 1931
Bassoe, P., and Ebaugh, F. G. *Neurology and Psychiatry* 1931
Beaumont, G. E. .. .. *Medicine* .. .. 2 copies 1932
Benedict, F. G., and C. G. *Mental Effort* .. .. (15) 1933
Bérard, L., Dumarest, F., and Desjacques. *Les Phrénicectomie* .. (6) 1933
Billard, G. .. .. .. *Phylaxis* 1931
Blacker, C. P. .. .. *Human Values in Psychological Medicine* 1933
Boyd, W. .. .. .. *Text-Book of Pathology* .. .. .. (6) 1932
Bradshaw Lecture .. .. (7) 1924
Bramwell, C. .. .. *Heart Disease* 1932
British Spas, Inland and Seaside Resorts .. .. (5) 1934
Brown, W. L. .. .. *English Medicine and the Cambridge School* .. .. (14) 1932
Burrell, L. S. T. .. .. *Artificial Pneumothorax* .. .. .. (6) 1932
Cameron, A. T., and Gilmour, C. R. *Biochemistry of Medicine* .. (14) 1933
Cannon, W. B. .. .. *Wisdom of the Body* .. .. (13) 1932
Cawadias, A. P. .. .. *Modern Therapeutics of Internal Diseases* (6) 1931
Cockayne, E. A. .. .. *Inherited Abnormalities of the Skin* 1933
Collie, J. .. .. *Workmen's Compensation* .. .. .. (6) 1933
Collie, J., ed. .. .. *Recent Progress in Medicine and Surgery, 1919–1933* 1933
Copeman, W. S. C. .. *Treatment of Rheumatism in General Practice* .. .. (6) 1933
Cowdry, E. V., ed. .. *Arterio-sclerosis* .. .. (6) 1933
Crile, G., and others .. *Diagnosis and Treatment of Diseases of the Thyroid Gland* .. .. (6) 1932
Cushing, H. .. .. .. *Intracranial Tumours* .. .. (6) 1932
Dhar, N. R. .. .. .. *New Conceptions in Biochemistry* .. (11) 1932
Forbes, J. G. .. .. *Diphtheria* .. .. (6) 1932
Foster, M. G. .. .. *Baths and Medicinal Waters of Great Britain and Europe* 1933
Fraser, J. E. .. .. *Manual of Embryology* .. .. .. (14) 1931
Galtier-Boissière .. .. *Larousse Médicale Illustré* .. .. .. (1) [1912]
Gould, E. P. .. .. .. *Surgical Pathology* .. .. (6) 1922
Halliburton, W. D., and McDowall, R. T. S. *Handbook of Physiology* 33rd Ed. (6) 1933

Harris, H. A.	*Bone Growth in Health and Disease*		1933
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